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ABSTRACT

Results of the second administration of the New Jersey Minimum Basic Skills (MBS) Tests in reading and mathematics are reported for students in grades 3, 6, 9, and 11. The reading tests are organized according to clusters of items: (1) word recognition; (2) comprehension; and (3) study skills. The mathematics tests are also organized into clusters: (1) computation; (2) number concepts; (3) measurement/geometry; and (4) problem solving. Student performance on the tests is reported at the district, county, and state levels. The percentage of students correctly answering each item is examined to determine the adequacy of mastery attainment for the skills assessed. An item-by-item comparison between the 1978-79 performance and the 1977-78 performance is made. In addition, a statistical analysis determines the relative degree of difficulty of each item on the 1978-79 test and compares it to the corresponding items on the 1977-78 test. Cautions are given in interpreting the MBS test results, particularly in comparison with commercial norm-referenced achievement tests, in comparison between students, schools, districts, and/or reference groups, in comparison with tests which are not equated and in comparison across grades. (RL)

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NEW JERSEY MINIMUM BASIC SKILLS TESTING PROGRAM 1978-79

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State Report: Analysis and Interpretation of Statewide Performance

TM800690

EDUCATIONAL ASSESSMENT PROGRAM

MINIMUM BASIC SKILLS TESTS

STATE REPORT

1978-1979

NEW JERSEY DEPARTMENT
OF EDUCATION
DIVISION OF OPERATIONS, RESEARCH AND EVALUATION
225 WEST STATE STREET
TRENTON, NEW JERSEY 08625

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STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
225 WEST STATE STREET
TRENTON, N J 08625

OFFICE OF THE COMMISSIONER

Dear Colleague:

I am pleased to present the 1978-79 State Report of the New Jersey Education Assessment Program. Two years ago, New Jersey's State Testing Program changed from a broad-based assessment of basic skills to a minimal competency testing program as a result of Chapter 97, Public Laws of 1976. This shift in the program reflected a growing recognition of the need for pupils to master minimum basic reading and mathematics skills.

The 1978-79 State Report provides data concerning the basic skills attainments of the students in our public schools. The results and interpretations reported demonstrate that students are doing well in many areas, but much work still remains in the area of minimum skills achievement. We can be pleased with our strengths and progress; however, we must not be complacent—our work is still unfinished. We must look carefully at the areas of decline and poor performance so that we can implement instructional programs which will transform these deficiencies to strengths.

The educational community in New Jersey is dedicated to providing a comprehensive learning experience for all our students. I am confident that the foundation in basic skills which is being developed through the Minimum Basic Skills Testing Program will assist in the establishment of higher level skills and programs. The data and interpretations contained in this report provide us with direction for continuing our efforts to ensure a comprehensive education for all New Jersey students.

Sincerely,

Fred G. Burke

Fred G. Burke
Commissioner

PREFACE

The 1978-1979 Educatonal Assessment Program State Report signifies the culmination of the second year of New Jersey's statewide minimum competency testing program. The program was initiated in response to legislation that amended the Public School Act of 1975 and called for the creation of "... uniform statewide standards of pupil proficiency in basic communication and computational skills ... that were reasonably related to those levels of proficiency ultimately necessary as part of the preparation of individuals to function politically, economically, and socially in a democratic society (Ch. 97, P.L. 1976)."

The primary purpose of the Minimum Basic Skills program is to assist educators in identifying individual and group strengths and weaknesses for the purpose of making sound educational decisions. This year we have seen educators on the local level use the Minimum Basic Skills Test results in innovative and creative ways to meet the objective of the program. It is becoming increasingly evident that educators at all levels are realizing the importance of analyzing test results from various perspectives to gather as much information as possible. We cannot be satisfied by merely acknowledging the number of students attaining statewide standards; we must also analyze student performance on each test item to isolate areas which might require further diagnosis, instructional support or curricular modification.

The analysis contained in this 1978-1979 State Report provides this type of in-depth study on a statewide basis, and gives us an indication of the status of minimum basic skills achievement in our public schools. In addition, it provides us with data necessary to focus our attention on the processes that will assist us in eliminating areas of deficiency. The Office of State Educational Assessment is committed to the concept of expanding our Program to provide methods for utilizing the Minimum Basic Skills tests in instructional as well as evaluative ways.

An example of this intent is the Basic Skills Mini-Tests. The Mini-Tests were developed as companions to the Minimum Basic Skills Tests, to provide additional diagnostic and instrutional tools for use in the classroom. In the coming year, we will be developing and distributing additional Mini-Tests for use in those grades not yet served.

In addition to the Mini-Tests, we plan to prepare and disseminate different types of reports to assist in analyzing the Minimum Basic Skills Test results in innovative ways, such as a report which will assist in the analysis of possible reasons for student responses to the test items. We also plan to develop alternative versions of the Minimum Basic Skills Tests for handicapped students and short forms of the test for use as a screening device for newly enrolled students. I emphasize that the primary purpose of the Minimum Basic Skills program is to provide data that will assist educators in making appropriate educational decisions. This objective will continue to guide our future plans.

As always, I welcome your suggestions and recommendations as to how we can work together to increase the usefulness of the Minimum Basic Skills program in our state.

Sincerely,

Stephen L. Koffler
Director
State Educational Assessment

INTRODUCTION

The New Jersey Educational Assessment Report provides an analysis of the results of the Minimum Basic Skills (MBS) reading and mathematics tests administered to all public school students in grades three, six, nine and eleven in March 1979.

The Minimum Basic Skills Tests were designed to assess pupil competencies in specified reading and mathematics skills. The test specifications are based on the input of over 30,000 educators, parents, citizens, and students and have not changed during the two year period of Minimum Basic Skills testing. The constancy of the specifications allows for comparisons of test score results from one year's test administration to another. As a result, this report presents not only an analysis of student performance on the items and cluster areas for the 1978-79 test, but also provides comparative analyses of student performance from 1977-78 to 1978-79.

In order to fully understand the results of the Minimum Basic Skills tests or any other test, analysis and interpretation of the results are necessary. Many committees are involved in the interpretation of the Minimum Basic Skills tests. Four interpretation committees identified areas of students strengths and weaknesses, analyzed differences in performance from one year to another and established rationales for proficiencies, deficiencies, improvements or declines which were noted.

In addition to the interpretation committees, many other groups of educators are included in every facet of the testing program. Each phase of the program is reviewed, discussed and analyzed continuously by various committees—each with a distinct and necessary role.

The District Test Corrdinators' Task Force and the Urban Test Coordinators' Workgroup are two committees which provide information about the testing program's impact on local districts. Experts in the content areas of reading and mathematics serve on test development committees and review newly developed items, field test results and regular test results. Measurement and testing experts serve on the Technical Advisory Council, to examine the psychometric properties of the tests. A Miniority Groups Advisory Committee is responsible for decisions regarding linguistic and cultural bias. The County Test Coordinators act as a testing liaison group and relay concerns from the school districts. The continuing dialogue and informational exchange between the Department and the committees ensure that all facets of the program are addressed from the beginning stage of test development to the final stage of the interpretation of results.

We extend a very special thanks to the many educators who were involved in developing both the tests themselves and this report and to the teachers and administrators who work so diligently in administering, validating, and interpreting the tests at the local level. Their combined efforts are very much appreciated.

We are especially appreciative of the work of Ms. Maria Hvizda, Ms. Dorothy Hornyak, Ms. Claire Barkosky, Ms. Grace Virok and Ms. Kathleen Paul who worked so arduously in typing this report.

NEW JERSEY MINIMUM BASIC SKILLS TEST RESULTS
1978-79

The school year 1978-79 marked the second administration of the New Jersey Minimum Basic Skills Tests in reading and mathematics. The tests were administered to students in grade three on March 27, 28, and 29, 1979, and in grades six, nine, and eleven on March 27 and 28, 1979. The third grade test was administered during a three day period to reduce the actual testing time for each day. This modification was in response to the concern of many educators that the original two day testing period was too intensive for third grade students.

This year approximately 90,600 third graders, 91,300 sixth graders, 108,400 ninth graders and 96,400 eleventh graders were tested. The reading tests are organized according to three clusters of items: (a) word recognition, (b) comprehension and (c) study skills. The mathematics tests were organized into four clusters: (a) computation, (b) number concepts, (c) measurement/geometry and (d) problem solving. The distribution of items by clusters can be seen on the following tables:

NUMBER OF ITEMS IN EACH CLUSTER ON THE MINIMUM BASIC SKILLS READING TESTS FOR GRADES THREE, SIX, NINE AND ELEVEN

READING				
CLUSTER	GRADE AND NUMBER OF ITEMS 3	6	9	11
Word Recognition	49	30	30	20
Comprehension	45	44	64	75
Study Skills	6	21	16	15
TOTAL	100	95	110	110

NUMBER OF ITEMS IN EACH CLUSTER ON THE MINIMUM BASIC SKILLS MATHEMATICS TESTS FOR GRADES THREE, SIX, NINE AND ELEVEN

MATHEMATICS				
CLUSTER	GRADE AND NUMBER OF ITEMS 3	6	9	11
Computation	38	34	41	38
Number Concepts	25	35	16	12
Measurement/Geometry	17	15	21	19
Problem Solving	20	16	17	21
TOTAL	100	100	95	90

DATA ANALYSIS/INTERPRETATION

Student performance on the tests was reported at three levels: district, county, and state. At each of these levels an analysis and interpretation of the data was required. At the state level, an analysis was conducted by content area experts in four independent committees (elementary reading, elementary mathematics, secondary reading, secondary mathematics). The Reading and Mathematics Interpretation Committees prepared the comprehensive interpretations of the State, Community type and District Factor Group results presented in this State Report.

The interpretations were conducted in three stages. First, the percentage of students correctly answering each item was examined to determine the adequacy of mastery attainment for the skills assessed. To assist the interpretation committees in considering item-by-item performance, the Office of State Educational Assessment developed the following parameters:

READING		MATHEMATICS	
Excellent	90-100%	Excellent	90-100%
Satisfactory	80- 89	Satisfactory	70- 89
Marginally Satisfactory	70- 79	Marginally Satisfactory	60- 69
Unsatisfactory	40- 69	Unsatisfactory	40- 59
Poor	0- 39	Poor	0- 39

These parameters were established to serve as guidelines for assessing item performance; if the committees saw a need to deviate from these guidelines, they were advised to do so. The terms defining these parameters—excellent, satisfactory, marginally satisfactory, unsatisfactory, and poor —were provided by the State Department of Education to characterize student performance. This initial judgement of mastery on this year's test was considered Phase I.

The second part of the state analysis and interpretation dealt with an item-by-item comparison between this year's performance and last year's performance. A statistical analysis determined the relative degree of difficulty of each item on this year's test compared to the corresponding items on last year's test. These data provided the basis for the analysis and interpretation conducted by the committees, and comments were made judging the percent of students correctly responding to an item this year compared to percent mastery on the corresponding item last year which measured the same skill. The terms defining the relative progress were the same as used in Phase I, with the committees having the ability to modify them if desired. This part of the interpretation was referred to as Phase II.

The data tables containing the statewide results are divided into two sections, Phase I and Phase II, to allow for the statement of two different interpretive comments. The following data have been included on the tables.

Column 1—item number
Column 2—specification
Column 3—percent correct 1978-79
Column 4—item comment 1978-79
Column 5—percent correct 1977-78
Column 6—comparison comment 1977-78 v. 1978-79

In addition to Phase I and Phase II, narrative summaries are provided which discuss performance in each cluster and the total test, and performance this year compared to last year.

Tables have also been provided which list performance by skill area for each test, and cluster averages by Community Type and District Factor Group. The item-by-item response table for each Community Type and District Factor Group will be available upon request.

CAUTIONS IN INTERPRETING THE MINIMUM BASIC SKILLS TEST RESULTS

INTRODUCTION

Assembly Bill A-1736 was signed into law in September, 1976 as Chapter 97 of the Public Laws of 1976. This law amended the "Thorough and Efficient" Education Act of 1975 and established uniform statewide minimum proficiency standards in basic communication and computational skills.

The Minimum Basic Skills Tests were developed by the New Jersey Department of Education and designed specifically for minimum standards purposes. The Minimum Basic Skills Tests are extremely valuable in terms of their utility in assisting in the identification of skill areas that require further instructional support. All the score reports, state, district, building, class, and individual student, are designed to facilitate such identifications. However, there are certain constraints which must be observed when considering the results of these tests.

The following information is offered to assist educators, parents, members of the media and others in better understanding what can and cannot be inferred from the results of the 1978-79 New Jersey Minimum Basic Skills Tests.

The Minimum Basic Skills Tests were designed to identify deficiencies in reading and mathematics skill areas which are considered "minimum." It is not possible to generalize pupil performance on the Minimum Basic Skills to their proficiency in other areas because of the nature of the test specifications.

Because of limited item sampling, the Minimum Basic Skills Tests cannot be considered truly diagnostic. In order for these tests to be considered as diagnostic tests, many more items for each test specification would have to be developed. Such tests would, at best, be very difficult to administer. It is the practical consideration which served as the basis of the decision to use the Minimum Basic Skills Tests primarily to identify those skill areas in which performance *may* be deficient. Local districts should use the Minimum Basic Skills Test results to identify those areas in which further diagnosis is needed. On the basis of more intensive diagnosis, skill deficiencies can be confirmed and instructional strategies designed to correct them.

COMMERCIAL NORM-REFERENCED ACHIEVEMENT TESTS AND THE MINIMUM BASIC SKILLS TESTS

Commercial norm-referenced achievement tests are typically designed to compare students achievement levels in specified areas to those of other students. These tests usually discriminate between students of varying ranges of ability.

The performance referenced Minimum Basic Skills Tests differ from commercial norm-referenced achievement tests in that they are designed to compare students to predetermined standards rather than to other students.

The Minimum Basic Skills Tests also differ from commercial norm-referenced achievement tests in that performance on the Minimum Basic Skills Tests may be used to generalize only the the domain of minimum basic skills in the content areas assessed. By contrast, performance on a commercial norm-referenced achievement test may usually be used to generalize to a domain of higher order skills in the content area tested.

HOW THE MINIMUM BASIC SKILLS TESTS RESULTS CAN BE USED TO MAKE VALID COMPARISONS

When interpreting the Minimum Basic Skills (MBS) Test results, the Office of State Educational Assessment recognizes that comparisons are inevitable. Those inclined to make comparisons should consider the Minimum Basic Skills Tests were not designed to facilitate comparisons between students, schools, districts, and/or other reference groups. However, while the tests were not designed for comparative purposes, District Factor Group and Community Type results are reported since they allow for the most valid type of comparisons—those by which districts similar in terms of the background variables of their students can be compared. When considering District Factor Group and Community Type results, keep in mind that comparisons should only be made when districts are comparable in terms of other variables such as curriculum, physical facilities, staffing and per pupil expenditures (in addition to being similar in terms of their students' background variables).

Consequently, while the District Factor Group and Community Type results allow for the most valid type of comparisons, even they must be closely scrutinized before any comparative statements can be made.

COMPARISONS WITH TESTS WHICH ARE NOT EQUATED WITH THE MINIMUM BASIC SKILLS TESTS

The Minimum Basic Skills Test results should *not* be compared with the results of other tests which have not been statistically equated with the Minimum Basic Skills Tests, or do not measure the same objectives. Such invalid comparisons are most frequently made between the results of the New Jersey Educational Assessment Program Tests administered from 1972 to 1976 and the Minimum Basic Skills Tests administered in 1978 and 1979. The tests administered from 1972 to 1976 assessed a broader range of skills than the 1978 and 1979 Minimum Basic Skills Tests and consequently are not comparable. Valid comparisons between the Educational Assessment Program tests and the Minimum Basic Skills Tests are further restricted by the fact that the earlier forms were administered to different students in different grades at different times of the year.

INAPPROPRIATENESS OF COMPARING MINIMUM BASIC SKILLS TEST PERFORMANCE ACROSS GRADES

Yet another incorrect interpretation of the Minimum Basic Skills Test results is to compare, at state, district, and building levels, the percentage of students scoring at or above standard in the different grades. The specifications vary for the different tests and the items are not of equal difficulty. Furthermore, there is a distinct difference between the focus of the tests designed for elementary and secondary students. The elementary tests (grades three and six) were designed to test those basic skills which are necessary for future academic success; the secondary tests assess student mastery of the concepts needed to function as a mature, young adult in roles including, but not limited to, that of student, employee, consumer, and public citizen.

CONCLUSION

The New Jersey Minimum Basic Skills Tests have been designed to identify those basic skills which need improvement at the state, district, building, classroom, and individual student levels. Score reports and interpretation guidelines have been developed to assist in the identification of those skills where student performance is deficient so that needs may be recognized and appropriate instructional strategies designed and implemented.

When such use is made of the results of the Minimum Basic Skills Tests, the tests can be characterized as providing information which is extremely valuable to educational decision makers. However, whenever any data are generated, there is always the possibility of misinterpretation. The results of the Minimum Basic Skills Tests are no exception. The preceding information has been provided to inform the reviewer of the test results as to how the results may be most appropriately used and what acceptable inferences may be drawn from them.

1978-79 RESULTS
THIRD GRADE READING

CLUSTER COMMENTS

The third grade reading Minimum Basic Skills Tests contained 100 items organized into three clusters: Word Recognition, Comprehension and Study Skills. Overall, student performance in 1978-79 was considered to be satisfactory.

Excellent performance was observed in the Word Recognition cluster although there was some difficulty noted for students on items measuring vowels and blending sounds and on items requiring the plural form of words ending in "y."

The items in the Comprehension cluster were based on passages dealing with different topics in a variety of formats from biographies to recipes. Student performance was strongest in identifying subject matter, sentence meaning, interpreting characters' emotions and making inferences. Performance varied from excellent to unsatisfactory on items in the area of identifying facts as stated and following directions, for an overall rating of satisfactory. Deficiencies were most noticeable on items which required students to distinguish between fact and fiction.

For the six items in the Study Skills cluster measuring alphabetical sequence and using a table of contents, third graders' performance was generally satisfactory.

DISTRICT FACTOR GROUPING—THIRD GRADE READING

Performance in Word Recognition was generally excellent for all District Factor Groups. Students in District Factor Group B and C demonstrated satisfactory performance in the area of vowels. In the area of blending sounds, students in District Factor Groups B through H exhibited satisfactory performance, while students in District Factor Group A showed unsatisfactory performance. District Factor Group A students exhibited satisfactory performance in most areas in this cluster except as noted above, and in the areas of contextual analysis, where satisfactory performance was noted, and vowels, where marginally satisfactory performance was noted.

In the Comprehension cluster, excellent performance was observed in the area of sentence meaning for all District Factor Groups. Students' ability to interpret characters' emotions, identify subject matter and make inferences was excellent for all groups with the exception of District Factor Group A, where performance was satisfactory. Varied performance was noted in District Factor Group A in the area of identifying main idea as stated, although their overall performance was satisfactory. Generally satisfactory performance was noted for all groups when students were required to follow directions and identify order and sequence, except for District Factor Group A where the performance was marginally satisfactory.

Students' ability to distinguish between fact and fiction was generally marginally satisfactory for all groups, except for groups A through C, where the performance was unsatisfactory.

District Factor Groups A through C exhibited satisfactory performance in the Study Skills cluster. Students in all other District Factor Groups exhibited excellent performance in this cluster.

COMMUNITY TYPE—THIRD GRADE READING

Generally, performance in Word Recognition was excellent for all community types in all areas except blending sounds, where performance was noted as satisfactory. In the area of vowels,

students in rural community types exhibited satisfactory performance while urban community type students performed in the marginally satisfactory range. Satisfactory performance in contextual analysis was noted for students in urban centers.

Performance in the Comprehension cluster was satisfactory. Excellent performance for all community types was noted in sentence meaning. Student performance in identifying subject matter, interpreting characters' emotions, and making inferences was also excellent except for urban center students who demonstrated satisfactory performance. Order and sequence, identifying facts as stated, and identifying main idea as stated showed varied performance across all community types. All community types exhibited satisfactory performance in following directions, except for urban students who demonstrated marginally satisfactory performance. Unsatisfactory performance was indicated in distinguishing fact from fiction across all community types.

On items relating to Study Skills, performance was excellent. Students' ability to use a table of contents was excellent, except for urban center and suburban-rural community types where performance was only satisfactory. Slight variation was noted across all community types in student ability to identify alphabetical sequence with performance ranging from satisfactory to excellent.

SUMMARY

Overall performance on the 1978-79 third grade Minimum Basic Skills Reading Test was considered to be satisfactory. Excellent performance was demonstrated in the area of Word Recognition while the performance on Comprehension items ranged from excellent to satisfactory with some variability noted. The results of the Study Skills section were generally considered to be satisfactory.

PROGRESS SUMMARY

In general, satisfactory progress was made from 1977-78 to 1978-79 on the third grade reading test. A consistently high level of performance on both years' tests particularly in the Word Recognition cluster left relatively little room for improvement. The Comprehension items dealing with order and sequence were the only items which showed a decline in performance from last year to this. In all other areas in the Comprehension cluster and in the Study Skills cluster, student progress was satisfactory.

TABLE I
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
THIRD GRADE – READING

Cluster Averages

By Community Type

	WORD RECOGNITION	COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	92.0%	85.2%	86.6%	
Regional	95.2	89.3	91.0	3
Urban Center	84.4	75.0	77.6	0
Urban-Suburban	94.6	88.2	89.5	3
Suburban	95.8	90.4	91.0	3
Suburban-Rural	94.6	88.9	90.1	3
Rural	93.5	87.2	88.1	3
Rural Center	91.2	85.0	85.7	0
Rural Center-Rural	93.0	87.2	88.6	3

Figure A

By District Factor Group

	WORD RECOGNITION	COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	92.0%	85.2%	86.6%	
A	83.5	73.5	76.2	0
B	91.4	84.3	86.6	0
C	92.1	85.1	87.0	2
D	93.8	87.5	88.6	3
E	95.2	88.9	89.8	3
F	95.1	89.6	90.6	3
G	95.2	89.7	90.5	3
H	95.5	90.2	91.3	3
I	95.9	90.6	91.2	3
J	96.1	91.1	91.1	3
Z	93.6	87.6	88.7	3

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: WORD RECOGNITION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
1	Sight vocabulary	99	Excellent	98	No change
2		98	Excellent	98	No change
3		97	Excellent	98	No change
4		99	Excellent	98	No change
5		98	Excellent	98	No change
6		98	Excellent	98	No change
7		98	Excellent	95	Satisfactory
8		98	Excellent	97	No change
9		98	Excellent	99	No change
10		99	Excellent	99	No change
19	Vowels	86	Satisfactory	97	Unsatisfactory
20		88	Satisfactory	78	Excellent
21		85	Satisfactory	88	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
22	Vowels	80	Satisfactory	78	Satisfactory
23		87	Satisfactory	78	Excellent
11	Single consonants	98	Excellent	98	No change
12		97	Excellent	94	Satisfactory
15		96	Excellent	96	Satisfactory
16		93	Excellent	86	Good
13	Consonant clusters	97	Excellent	95	Satisfactory
14		95	Excellent	96	Satisfactory
17		96	Excellent	93	Satisfactory
18		97	Excellent	95	Satisfactory
24	Rhyming words	93	Excellent	94	Satisfactory
25		96	Excellent	93	Satisfactory
26		97	Excellent	93	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
27	Rhyming words	96	Excellent	87	Good
36	Blending sounds	79	Marg. satisfactory	89	Unsatisfactory
37		81	Satisfactory	88	Unsatisfactory
38		87	Satisfactory	84	Satisfactory
39		83	Satisfactory	91	Unsatisfactory
28	Inflectional endings and plurals	91	Excellent	68	Excellent
29		61	Unsatisfactory	62	Satisfactory
30		98	Excellent	98	No change
31		97	Excellent	97	No change
32	Contractions	97	Excellent	97	No change
33		95	Excellent	98	Satisfactory
34		97	Excellent	95	Satisfactory
35		93	Excellent	94	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
40	Contextual analysis	91	Excellent	70	Excellent
41		94	Excellent	90	Good
42		94	Excellent	87	Good
43		95	Excellent	92	Satisfactory
44		92	Excellent	83	Good
45		95	Excellent	91	Good
46		84	Satisfactory	95	Unsatisfactory
47		93	Excellent	94	Satisfactory
48		92	Excellent	91	Satisfactory
49		94	Excellent	94	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: COMPREHENSION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
70	Identify facts as stated	85	Satisfactory	33	Good
71		76	Marg. satisfactory	84	Unsatisfactory
74		91	Excellent	77	Good
76		89	Satisfactory	86	Satisfactory
78		92	Excellent	83	Good
79		85	Satisfactory	76	Excellent
85		94	Excellent	88	Good
94		91	Excellent	82	Excellent
97		64	Unsatisfactory	78	Unsatisfactory
98		82	Satisfactory	92	Unsatisfactory
68	Identify subject matter of the paragraph	91	Excellent	96	Satisfactory
89		91	Excellent	85	Good
95		92	Excellent	83	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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GRADE: THREE - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs 1978-79
81	Order and sequence	75	Marg. satisfactory	87	Poor
82		90	Excellent	92	Satisfactory
83		93	Excellent	68	Good
91		69	Unsatisfactory	78	Poor
92		82	Satisfactory	84	Satisfactory
93		88	Satisfactory	80	Good
62	Sentence meaning	98	Excellent	98	No change
63		99	Excellent	98	No change
64		98	Excellent	98	No change
65		99	Excellent	95	Satisfactory
66		94	Excellent	98	Satisfactory
67		97	Excellent	97	No change
69	Main idea as stated	92	Excellent	85	Good

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
80	Main idea as stated	87	Satisfactory	78	Excellent
87		84	Satisfactory	79	Good
96		71	Marg. satisfactory	74	Satisfactory
99		73	Marg. satisfactory	75	Satisfactory
56	Following directions	91	Excellent	84	Good
57		92	Excellent	97	Satisfactory
58		82	Satisfactory	83	Satisfactory
59		74	Marg. satisfactory	88	Unsatisfactory
60		79	Marg. satisfactory	81	Satisfactory
61		92	Excellent	70	Good
75	Interpret character's emotions	93	Excellent	88	Satisfactory
86		96	Excellent	86	Good
90		87	Satisfactory	89	Satisfactory

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Minimum Basic Skills Test
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
73	Distinguish between fact and fiction	56	Unsatisfactory	88	Unsatisfactory
88		69	Unsatisfactory	64	Good
100		86	Satisfactory	84	Satisfactory
72	Make inferences about causes	85	Satisfactory	89	Unsatisfactory
77		93	Excellent	88	Good
84		91	Excellent	65	Good

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - READING

CLUSTER: STUDY SKILLS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
50	Alphabetical sequence	96	Excellent	93	Satisfactory
51		84	Satisfactory	84	Satisfactory
52		88	Satisfactory	84	Good
53	Table of contents	89	Satisfactory	89	Satisfactory
54		91	Excellent	89	Satisfactory
55		88	Satisfactory	69	Excellent

1978-79 RESULTS
THIRD GRADE MATHEMATICS

CLUSTER COMMENTS

The third grade mathematics Minimum Basic Skills test measured pupil proficiency in the areas of Computation, Number Concepts, Measurement and Geometry, and Problem Solving and Applications.

Third graders statewide demonstrated mastery of the basic computation skills of addition without regrouping, subtraction facts and multiplication facts. Many students did experience difficulty when computation involved regrouping of numbers particularly in subtraction. The primary concept of always subtracting the smaller number from the larger number continues to confuse third graders faced with multi-digit subtraction problems requiring regrouping; for example, given the item 43 − 27 = □, the answer most frequently selected is 24 (4 − 2 = 2, 7 − 3 = 4). Difficulties in computations involving zero were also noted in the third grade results.

Pupil performance was very strong in the areas of simple equations involving addition and multiplication, cardinal numbers and counting by twos and fives. Third graders demonstrated weaknesses on items involving bridging across tens and hundreds (e.g., 80, 90, 100, □, 120) and on items involving recognizing inverse operations (e.g., 9 + 5 = 14 is the same as 14 − 9 = 5). Pupil performance in this cluster points to the need for continued use of various symbols and formats to represent the unknown quantity in number sentences (e.g., 5 + □ = 10, × + 5 = 10, 5 + 5 = ?, etc.).

Satisfactory performance was recorded for students on items requiring telling time, recognizing day and date (such as on a calendar or watch) and determining the value of coins. Performance in the area of recognizing metric units indicates the need for additional instructional attention in this area. In general, third graders performed satisfactorily in the Measurement and Geometry cluster.

Inability to identify key words or phrases in reading and solving word problems appears to have contributed to third graders' less than satisfactory performance in the Problem Solving and Applications cluster. More emphasis may also be necessary in order to improve students' ability to select appropriate operations to solve word problems.

DISTRICT FACTOR GROUPING—THIRD GRADE MATHEMATICS

Performance for District Factor Groups in the Computation cluster ranged from excellent to unsatisfactory. Performance for all groups in the skills area of addition of one-digit numbers, addition of multi-numbers in vertical format, and subtraction of one-digit numbers without regrouping was rated excellent. The lowest performance for all groups was noted on items involving subtraction of one or more numbers where regrouping was required. Performance on these items ranged from marginally satisfactory to poor. Students in District Factor Group J demonstrated the most satisfactory performance throughout this cluster, while students in District Factor Group A demonstrated the poorest performance.

In the Number Concept cluster, the highest level of performance by all groups was noted on items related to cardinal numbers of a set, simple equations with addition, subtraction and multiplication. Performance on these items ranged from satisfactory to excellent. Students in most of the District Factor Groups experienced difficulty in inverse operations and models for simple fractions. Ratings for this subskill ranged from marginally satisfactory to poor.

In the cluster of Measurement and Geometry, performance was excellent on the day, date,

time and cents items for all the District Factor Groups, except for District Factor Group A on the time related items. All districts performed from satisfactory to unsatisfactory on items involving the metric units.

In the Problem Solving and Applications cluster, performance ratings ranged from excellent to poor. The items dealing with "how much more than" type problems, subtraction with regrouping, simple multiplication and division with two or three steps caused the greatest difficulty. In this cluster, District Factor Group A continued to score lower than all other groups.

COMMUNITY TYPE—THIRD GRADE MATHEMATICS

In the Computation cluster, overall performance was satisfactory for all community types, except the urban centers where the performance was marginally satisfactory. Lower satisfactory levels were noted for every community type when regrouping was required in subtraction. Urban centers demonstrated particularly low results in this area. The greatest variation in performance appeared between the urban and the suburban community types. Particular strengths in all phases of addition and multiplication facts were shown by the suburban and regional groups. There were little differences observed for the remaining community types.

In the Number Concepts cluster, overall performance was satisfactory for all community types except the urban centers where the performance was marginally satisfactory. The largest percent of students correctly answering items was noted for the regional and suburban community types, with the urban centers having the smallest percent. Little variation was found among the remaining community types.

Performance on inverse operations and models for simple fractions items revealed generally low performance for all community types. High proficiency was observed across the community types in the areas of cardinality, identity concepts, number patterns for twos and fives, and simple equations involving addition, subtraction and multiplication.

In the Measurement and Geometry cluster, performance was satisfactory for all the community types except the urban centers where performance was marginally satisfactory. Little variation was found among the remaining community types. High proficiency was observed for all community types in areas of time and money.

In the Problem Solving and Application cluster, overall performance was unsatisfactory for the urban group and marginally satisfactory for the remaining community types. The urban centers had the lowest percentages of correctly answered items, with wide variations noted between their percentages and those of the highest achieving community types on almost every question.

SUMMARY

For the third grade mathematics test, the overall results were satisfactory. Particular strengths were demonstrated within the Computation cluster. The Problem Solving cluster continues to present the greatest degree of difficulty, particularly on items involving simple word problems.

PROGRESS SUMMARY

Third graders in 1978-79 have improved in basic mathematics skills from 1977-78. In the area of computation, improvement was most noticeable on items involving subtraction of multiple digit numbers with regrouping (borrowing). Generally satisfactory progress was made in all other computation areas.

In the Number Concepts cluster progress from last year to this was more variable. Third graders improved greatly in solving simple equations and inequalities and recognizing even and odd numbers. However, students this year experienced more difficulty in counting to one thousand and identifying the place value of digits in three-digit numbers particularly when these operations required students to bridge tens and hundreds (e.g., 788, 789, □). Performance also declined on items involving simple fractions.

Excellent progress was made on items in the Measurement and Geometry cluster involving traditional (i.e., inch, mile) and metric (i.e., liter, meter) units of measure, and reading a calendar. In other skill areas in this cluster, there was only satisfactory progress over last year's performance on comparable items. Performance declines were noted in telling time, knowing the number of months in a year and recognizing a square in a non-level position.

Overall, marginally satisfactory progress was made by third graders in the Problem Solving and Applications cluster. On simple word problems there was no clear pattern of either improvement or decline as performance comparisons ranged from excellent on some items to poor on others. Improvement was seen on items involving making change.

TABLE II
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
THIRD GRADE – MATHEMATICS

Cluster Averages

By Community Type

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND GEOMETRY	PROBLEM SOLVING AND APPLICATION	NUMBER OF CLUSTERS ABOVE STATE
State Averages	80.1%	80.3%	80.4%	67.1%	
Regional	85.5	85.7	85.3	73.6	4
Urban Center	69.0	67.8	67.7	50.6	0
Urban-Suburban	83.9	84.1	84.4	71.8	4
Suburban	86.5	87.6	87.1	77.2	4
Suburban-Rural	83.8	84.8	85.3	72.9	4
Rural	80.3	81.5	82.6	69.2	4
Rural Center	79.3	79.8	79.6	66.1	0
Rural Center-Rural	83.2	80.5	81.9	68.3	4

Figure A

By District Factor Group

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND GEOMETRY	PROBLEM SOLVING AND APPLICATION	NUMBER OF CLUSTERS ABOVE STATE
State Averages	80.1%	80.3%	80.4%	67.1%	
A	67.4	65.7	66.0	48.6	0
B	77.7	77.8	78.3	62.8	0
C	80.0	80.1	80.2	65.5	0
D	82.6	83.1	83.1	69.6	4
E	84.5	84.7	85.1	72.3	4
F	86.2	85.6	85.7	74.7	4
G	85.8	86.6	86.4	74.7	4
H	85.2	86.5	86.6	76.0	4
I	86.4	88.0	87.6	78.0	4
J	86.7	88.9	88.2	79.0	4
Z	81.7	82.2	83.5	70.2	4

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: COMPUTATION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
1	Add one-digit numbers	96	Excellent	96	Satisfactory
68		95	Excellent	93	Satisfactory
3	Add multiple numbers in vertical format without regrouping (carrying)	94	Excellent	96	Marg. satisfactory
39		96	Excellent	93	Satisfactory
50	Add multiple numbers in vertical format with one regrouping (carrying)	88	Satisfactory	82	Excellent
55		86	Satisfactory	83	Satisfactory
62		84	Satisfactory	78	Excellent
82		86	Satisfactory	82	Excellent
84		86	Satisfactory	80	Excellent
93		81	Satisfactory	78	Satisfactory
6	Add three numbers in vertical format	89	Satisfactory	92	Unsatisfactory

New Jersey Educational Assessment Program
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GRADE: THREE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
10	Add three numbers in vertical format	93	Excellent	94	Satisfactory
37		92	Excellent	94	Marg. satisfactory
87		90	Excellent	85	Excellent
27	Add multiple digit numbers in vertical format with more than one regrouping (carrying)	80	Satisfactory	76	Excellent
60		75	Satisfactory	77	Unsatisfactory
95		78	Satisfactory	67	Excellent
36	Subtract one-digit numbers	97	Excellent	96	Satisfactory
70		96	Excellent	95	Satisfactory
4	Subtract multiple digit numbers in vertical format without regrouping (borrowing)	84	Satisfactory	84	Marg. satisfactory
43		94	Excellent	88	Excellent

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Minimum Basic Skills Test
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
18	Subtract multiple numbers in vertical format with one regrouping (borrowing)	74	Satisfactory	74	Marg. satisfactory
29		63	Marg. satisfactory	59	Excellent
57		67	Marg. satisfactory	68	Marg. satisfactory
64		63	Marg. satisfactory	56	Excellent
89		72	Satisfactory	64	Excellent
97		67	Marg. satisfactory	49	Excellent
33	Subtract multiple digit numbers in vertical format with more than one regrouping (borrowing)	59	Marg. satisfactory	45	Excellent
66		60	Marg. satisfactory	53	Excellent
100		63	Marg. satisfactory	52	Excellent
7	Multiply two one-digit numbers less than or equal to six	91	Excellent	89	Satisfactory

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
74	Multiply two one-digit numbers less than or equal to six	90	Excellent	90	Marg. satisfactory
12	Multiply a two-digit number by a one-digit number in vertical format without regrouping (carrying)	78	Satisfactory	75	Satisfactory
47		80	Satisfactory	74	Excellent
52		72	Satisfactory	69	Satisfactory
77		82	Satisfactory	73	Excellent
14	Divide with divisors and quotients less than or equal to six, no remainder	82	Satisfactory	84	Unsatisfactory
91		77	Satisfactory	74	Satisfactory

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GRADE: THREE - MATHEMATICS

CLUSTER: NUMBER CONCEPTS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
8	Count to one thousand; read or write numerals up to one thousand	69	Marg. satisfactory	89	Unsatisfactory
53		82	Satisfactory	85	Unsatisfactory
76		81	Satisfactory	81	Marg. satisfactory
26	Place value in three-digit numerals	72	Satisfactory	76	Poor
49		81	Satisfactory	82	Marg. satisfactory
81		79	Satisfactory	75	Excellent
23	Models for simple fractions	61	Marg. satisfactory	68	Poor
88		69	Marg. satisfactory	75	Poor
56	Simple equations involving addition	92	Excellent	88	Excellent
17	Simple equations involving subtraction	88	Satisfactory	71	Excellent
79	Simple equations involving multiplication	92	Excellent	82	Excellent

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GRADE: THREE - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
54	Simple inequalities	75	Satisfactory	68	Excellent
38	Cardinal number of a set or the ordinal number associated with a position	97	Excellent	91	Satisfactory
69		92	Excellent	89	Satisfactory
25	Odd and even numbers less than twenty (zero omitted)	74	Satisfactory	65	Excellent
67		70	Satisfactory	66	Excellent
31	Inverse operations: addition to subtraction and multiplication to division	57	Marg. satisfactory	55	Satisfactory
96		61	Marg. satisfactory	51	Excellent
16	Equations involving concept of identity (properties of zero and one)	88	Satisfactory	89	Marg. satisfactory
22		88	Satisfactory	81	Excellent
51		82	Satisfactory	73	Excellent

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GRADE: THREE - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
86	Equations involving concept of identity (properties of zero and one)	92	Excellent	88	Satisfactory
2	Count by 2's, 5's, or 10's; identify a missing term in a simple number pattern or sequence	65	Marg. satisfactory	98	Poor
41		91	Excellent	94	Marg. satisfactory
72		90	Excellent	91	Satisfactory

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
48	Unit of measure for length: inch, foot, yard, mile	88	Satisfactory	52	Satisfactory
78		75	Satisfactory	60	Excellent
13	Metric units: meter, liter, gram	68	Marg. satisfactory	53	Excellent
42		69	Marg. satisfactory	64	Excellent
35	Time of day	86	Satisfactory	94	Poor
75		79	Satisfactory	73	Excellent
11	Time measure: minutes, days, months	85	Satisfactory	81	Excellent
80		91	Excellent	90	Satisfactory
46		81	Satisfactory	87	Poor
9	Day and date	95	Excellent	90	Excellent
44	Value in cents: a set of coins	89	Satisfactory	83	Excellent
71		84	Satisfactory	87	Unsatisfactory

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
5	Basic geometric figures: triangle, rectangle, square, circle	69	Satisfactory	91	Unsatisfactory
40		85	Satisfactory	78	Excellent
73		69	Marg. satisfactory	93	Marg. satisfactory
19	Locate points on a number line	80	Satisfactory	92	Marg. satisfactory
85		71	Satisfactory	89	Marg. satisfactory

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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: PROBLEM SOLVING AND APPLICATIONS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
58	Mathematical sentences	72	Satisfactory	75	Unsatisfactory
99		82	Satisfactory	55	Satisfactory
21	Making a purchase: compare coins with cost	80	Satisfactory	64	Excellent
83		73	Satisfactory	76	Unsatisfactory
32	Making change	59	Marg. satisfactory	59	Marg. satisfactory
61		56	Unsatisfactory	42	Excellent
15	Problems: the passing of time	79	Satisfactory	66	Excellent
20	Problems: distances	67	Marg. satisfactory	76	Poor
24	Simple reading problems: computation objectives	74	Satisfactory	83	Poor
28		81	Satisfactory	70	Excellent
30		53	Unsatisfactory	59	Poor
34		57	Unsatisfactory	61	Poor

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Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: THREE - MATHEMATICS

CLUSTER: PROBLEM SOLVING AND APPLICATIONS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
45	Simple reading problems: computation objectives	87	Satisfactory	74	Excellent
59		55	Unsatisfactory	72	Unsatisfactory
63		60	Marg. satisfactory	58	Satisfactory
65		66	Marg. satisfactory	49	Excellent
90		84	Satisfactory	75	Excellent
92		55	Unsatisfactory	67	Poor
94		57	Unsatisfactory	39	Satisfactory
98		82	Satisfactory	73	Excellent

TABLE III
SUMMARY OF SKILL PERFORMANCE

THIRD GRADE

CONTENT AREA	PERFORMANCE IN SKILL AREA	
	SATISFACTORY	IN NEED OF IMPROVEMENT
Reading	sight vocabulary vowels single consonants consonant clusters rhyming words blending sounds plurals contractions contextual analysis identifying subject matter sentence meaning interpreting character's emotions alphabetical sequence table of contents	identifying facts order and sequence main idea following directions distinguishing fact/fiction
Mathematics	simple computation addition, subtraction, multiplication, division place value simple equations equation concept of identity time: minute, day, month value in cents math sentences	subtraction with regrouping models for simple fractions inverse operations metric units basic geometric figures making change problem solving: simple reading

1978-79 RESULTS
SIXTH GRADE READING

CLUSTER COMMENTS

Sixth graders demonstrated proficiency in the Word Recognition and Study Skills clusters. Performance was excellent in phonetic analysis and using contextual analysis to identify synonyms, multiple meanings, and antonyms (with the exception of item #26). Performance was also excellent in using structural analysis to identify contractions, affixes and roots. Generally satisfactory performance was noted in recognizing correct syllabication and identifying plurals when used in context. A relatively large percentage of students demonstrated weakness in identifying possessives.

In the Comprehension cluster, student performance was generally excellent in following directions. Satisfactory performance was noted in students' ability to draw inferences. Students generally had difficulty identifying the main idea. Marginally satisfactory performance was observed for items measuring literal skills and unsatisfactory performance was observed on interpretive skill items. Varied performance was demonstrated when students were required to identify facts as stated. Unsatisfactory performance was observed in distinguishing fact from fiction.

Performance on items dealing with alphabetical sequence and glossary usage was excellent. Satisfactory performance was observed in all other areas.

DISTRICT FACTOR GROUPING—SIXTH GRADE READING

Within the Word Recognition cluster, generally excellent performance was noted for all District Factor Groups in the areas of phonetic analysis, contractions, identifying synonyms in context, and identifying multiple meanings in context. Student performance was excellent in identifying antonyms in context except for item #26. Generally excellent performance was noted on such structural analysis items as those focusing on affixes and roots in District Factor Groups D through Z with satisfactory performance by District Factor Groups A through C. The performance of all District Factor Groups on syllabication was satisfactory. The overall performance on items requiring students to identify plurals in context was generally satisfactory in District Factor Group B through Z. Marginally satisfactory performance in this area was noted by District Factor Group A. All District Factor Groups demonstrated marginally satisfactory performance on identifying possessives in context.

Although overall performance in the Comprehension cluster was satisfactory for all District Factor Groups, varied performance was noted in identifying facts and sequence. The most varied performance in identifying facts was noted with District Factor Groups A and B. Generally excellent performance was noted for all District Factor Groups in following directions, except for District Factor Group A where satisfactory performance was noted. In the area of interpreting inferences and identifying main idea, student performance was generally satisfactory in all District Factor Groups, except in District Factor Group A where varied performance was noted. In the area of identifying main idea, satisfactory performance was noted for District Factor Groups G through Z. Marginally satisfactory performance was noted for District Factor Groups B through F, while the performance of District Factor Group A was unsatisfactory. The performance was marginally satisfactory in the area of identifying summary information for all District Factor Groups except District Factor Group A. Marginally satisfactory performance was noted in distinguishing fact and fiction in District Factor Groups E through Z. Unsatisfactory performance was noted in District Factor Groups A through D.

In the Study Skills cluster, all District Factor Groups exhibited excellent performance in alphabetical sequence, use of a glossary and use of an index. However, item 40 in indexing was difficult for students in all District Factor Groups. Excellent performance was noted in the student's

ability to use a table of contents in District Factor Groups C through J, with satisfactory performance noted in District Factor Groups A and B. In using guide words, student performance in District Factor Groups B through H and Z was satisfactory and in District Factor Group A marginally satisfactory. Generally satisfactory performance was observed in the area of dictionary meaning for District Factor Groups C through J with marginally satisfactory performance for District Factor Groups A and B. No generalization can be made in the area of identifying fact from illustrated material because of the varied performance in all groups.

COMMUNITY TYPES—SIXTH GRADE READING

In the Word Recognition cluster, excellent performance was noted for all groups in the area of phonetic analysis. Excellent performance was also demonstrated in the area of structural analysis for all groups except for the urban center community type where performance was satisfactory. Generally satisfactory performance was observed for all groups in the area of contextual analysis with some variance of performance noted for students in the urban group.

In the Comprehension cluster at the literal level, satisfactory performance was noted for suburban areas while the urban center and rural community types performed unsatisfactorily. In the areas of drawing inferences and summarizing information, performance among all groups was satisfactory except for the urban center where performance was less than satisfactory. All groups performed unsatisfactorily in distinguishing fact from fiction.

In the Study Skills cluster, performance in the area of identifying alphabetical sequence was excellent among all groups. Excellent performance was also noted in the students' ability to use a table of contents, except for the urban center and rural groups who performed satisfactorily. All groups performed excellently when asked to use a glossary, except for the urban center community type whose performance was satisfactory. Satisfactory performance was noted across all groups in the ability to use an index. Satisfactory performance in most groups was also observed in the areas of using the dictionary and illustrative material, with the exception of the urban center group who performed at the marginally satisfactory level.

SUMMARY

Student performance on items measuring word recognition skills such as phonetic analysis and the structural analysis skills of identifying contractions, affixes and roots was excellent. Generally satisfactory performance was noted in the area of syllabication. Less than satisfactory student performance pointed out the need for increased instruction in identifying possessives.

In general, performance on Comprehension skills was better at the literal level than at the interpretive level of Comprehension where the skills of distinguishing fact and fiction and identifying the main idea appear to be difficult concepts for most students.

Performance on items in the Study Skills cluster ranged from generally satisfactory to excellent.

PROGRESS SUMMARY

In comparing the performance of sixth graders on the 1978-79 reading test to the performance in 1977-78, certain observations can be made. In the area of Word Recognition, satisfactory progress was made on most items although performance declined in the area of syllabication. Improvement was noted on contextual analysis items dealing with identifying words with multiple meanings and those related to plurals.

With the exception of clear improvement in the literal comprehension area of identifying main idea as stated and satisfactory to good progress in identifying facts as stated, there appears to be more variability than consistency resulting from the comparison of pupil performance from 1977-78 to 1978-79 in the Comprehension section of the sixth grade reading test.

Generally satisfactory performance was indicated in the area of Study Skills. In the area of dictionary skills good improvement was noted on items requiring the use of guide words but a lack of improvement was observed when students were required to use the dictionary to select the appropriate meaning of a given word.

TABLE IV
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
SIXTH GRADE – READING

Cluster Averages

By Community Type

	WORD RECOGNITION	COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	87.5%	77.0%	87.2%	
Regional	91.0	82.5	91.3	3
Urban Center	79.8	64.6	77.6	0
Urban-Suburban	89.8	80.4	89.9	3
Suburban	91.5	83.5	91.6	3
Suburban-Rural	89.8	80.9	90.3	3
Rural	88.9	79.6	89.3	3
Rural Center	86.5	76.3	86.7	0
Rural Center-Rural	87.3	77.1	87.1	1

Figure A

By District Factor Group

	WORD RECOGNITION	COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	87.5%	77.0%	87.2%	
A	79.0	63.5	76.6	0
B	85.5	73.6	85.2	0
C	87.5	76.4	87.3	1
D	88.9	78.5	89.0	3
E	89.7	80.1	90.0	3
F	89.6	81.2	89.8	3
G	90.7	82.1	91.0	3
H	91.1	82.6	91.4	3
I	92.2	84.9	92.6	3
J	92.5	85.8	93.0	3
Z	87.6	79.2	88.8	3

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - READING

CLUSTER: WORD RECOGNITION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
1	Phonetic analysis - blending sounds	98	Excellent	98	No change
2		93	Excellent	86	Good
3		97	Excellent	97	Good
4		87	Satisfactory	96	Poor
5		93	Excellent	96	Satisfactory
6	Structural analysis - syllabication	82	Satisfactory	92	Poor
7		89	Satisfactory	54	Good
8		77	Marg. satisfactory	95	Poor
9	Structural analysis - affixes and roots	90	Excellent	90	Satisfactory
10		81	Satisfactory	91	Poor
11		98	Excellent	85	Good
12		94	Excellent	96	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
13	Structural analysis - contractions	93	Excellent	96	Satisfactory
14		99	Excellent	99	No change
15		98	Excellent	93	Satisfactory
16	Contextual analysis - possessives	76	Marg. satisfactory	77	Satisfactory
17		73	Marg. satisfactory	66	Good
18		96	Excellent	95	Satisfactory
19	Contextual analysis - plurals (with changes in roots)	88	Satisfactory	82	Good
20		79	Marg. satisfactory	56	Excellent
21		80	Satisfactory	82	Satisfactory
22	Contextual analysis - synonyms	97	Excellent	95	Satisfactory
23		97	Excellent	97	No change
24		92	Excellent	98	Unsatisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
25	Contextual analysis - antonyms	99	Excellent	94	Satisfactory
26		43	Unsatisfactory	93	Unsatisfactory
27		99	Excellent	91	Satisfactory
28	Contextual analysis - multiple meanings	97	Excellent	75	Good
29		94	Excellent	81	Good
30		96	Excellent	69	Good

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - READING

CLUSTER: COMPREHENSION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
62	Literal - identify facts as stated	86	Satisfactory	85	Satisfactory
63		95	Excellent	87	Good
68		86	Satisfactory	80	Good
69		74	Marg. satisfactory	71	Satisfactory
78		61	Unsatisfactory	82	Poor
86		90	Excellent	87	Satisfactory
91		85	Satisfactory	81	Good
92		70	Marg. satisfactory	68	Satisfactory
72	Literal - identify main idea as stated	72	Marg. satisfactory	66	Good
80		82	Satisfactory	74	Good
89		70	Marg. satisfactory	62	Good
93		78	Marg. satisfactory	63	Good

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
64	Literal - sequence of events or ideas	55	Unsatisfactory	77	Poor
70		76	Marg. satisfactory	68	Good
73		79	Marg. satisfactory	55	Excellent
74		88	Satisfactory	84	Good
81		56	Unsatisfactory	64	Unsatisfactory
52	Literal - following directions	93	Excellent	89	Satisfactory
53		94	Excellent	98	Unsatisfactory
54		82	Satisfactory	89	Unsatisfactory
55		97	Excellent	94	Satisfactory
56		84	Satisfactory	80	Good
57	77	93	Excellent	84	Good
58		90	Excellent	88	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
71	Interpretive - identify main idea	69	Unsatisfactory	88	Poor
76		72	Marg. satisfactory	91	Poor
83		90	Excellent	70	Excellent
85		59	Unsatisfactory	74	Poor
94		32	Poor	76	Poor
65	Interpretive - drawing inferences	94	Excellent	80	Good
66		76	Marg. satisfactory	83	Unsatisfactory
79		87	Satisfactory	82	Good
87		78	Marg. satisfactory	49	Excellent
88		81	Satisfactory	54	Good
59	Interpretive - summary of information	93	Excellent	79	Good
60		82	Satisfactory	87	Unsatisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - READING

CLUSTER: COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
61	Interpretive - summary of information	68	Unsatisfactory	81	Poor
77		81	Satisfactory	56	Excellent
82		61	Unsatisfactory	48	Excellent
67	Interpretive - distinguish fact/ fiction	64	Unsatisfactory	60	Good
75		70	Marg. satisfactory	82	Poor
84		76	Marg. satisfactory	74	Satisfactory
90		60	Unsatisfactory	85	Poor
95		64	Unsatisfactory	81	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - READING

CLUSTER: STUDY SKILLS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
31	Alphabetical sequence to 2nd and 3rd letters	98	Excellent	97	No change
32		97	Excellent	96	Satisfactory
33		98	Excellent	98	No change
34	Table of contents	87	Satisfactory	84	Satisfactory
35		94	Excellent	92	Satisfactory
36		89	Satisfactory	88	Satisfactory
37	Glossary	95	Excellent	80	Good
38		90	Excellent	92	Satisfactory
39		94	Excellent	94	Satisfactory
40	Index	51	Unsatisfactory	97	Unsatisfactory
41		94	Excellent	83	Good
42		94	Excellent	85	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - READING

CLUSTER: STUDY SKILLS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
43	Dictionary skills - guide words	80	Satisfactory	79	Satisfactory
44		93	Excellent	76	Good
45		79	Marg. satisfactory	66	Good
46	Dictionary skills - selection of appropriate meaning	82	Satisfactory	87	Unsatisfactory
47		78	Marg. satisfactory	61	Excellent
48		81	Satisfactory	91	Poor
49	Obtaining facts from illustrative materials (maps, graphs, tables)	58	Unsatisfactory	97	Unsatisfactory
50		83	Satisfactory	78	Good
51		93	Excellent	95	Satisfactory

1978-79 RESULTS
SIXTH GRADE MATHEMATICS

CLUSTER COMMENTS

In the Computation cluster, performance in computing with whole numbers was satisfactory. Strengths were shown in the addition of four or five digit numbers with regrouping. The horizontal format of decimals presented difficulties. Particular attention is needed in the operation of multiplying whole numbers with fractions as well as adding, multiplying and dividing decimals.

The marginally satisfactory mastery level in the Number Concepts cluster identified several areas of concern. Particular emphasis is needed in the following areas: concept of percent, rounding of numbers, number line, inequalities, mathematical vocabulary and mathematical notation.

In the cluster Measurement and Plane Figures, the results were generally satisfactory. It is recommended that experiences be provided in the recognition of both customary and metric units and additional attention be focused on conversion within the same system.

The results for Problem Solving and Applications were generally satisfactory. Areas of concern included ratio, proportion, estimation, averaging, making change and problems dealing with more than one operation.

DISTRICT FACTOR GROUPING—SIXTH GRADE MATHEMATICS

Students in District Factor Group J demonstrated the highest degree of mastery throughout the Computation cluster, while those in District Factor Group A demonstrated the lowest. Relatively low percentages of students correctly answering items were noted for all District Factor Groups in the subskills of multiplication of fractions and multiplication and division of decimals. All District Factor Groups performed satisfactorily on items related to addition, subtraction, and multiplication of whole numbers and addition of decimals.

Performance in the Number Concepts cluster was marginally satisfactory. The general pattern of increasing percentages from District Factor Group A to J was evidenced again in this cluster as it was in the Computation cluster. The results of the I and J groups were substantially higher than those for the state throughout the cluster.

All District Factor Groups performed well in the areas of place value, numeration involving whole numbers, and solving equations. Areas in which all groups performed relatively low were numeration involving decimals, percent, rounding of numbers, equivalent rational numbers, and inverse operations. Locating points on a number line dealing with fractions and decimals presented particular difficulty. The results in the Measurement and Plane Figures cluster were relatively satisfactory. Once again performance of District Factor A and B were lower than that of District Factor Group I and J. All groups exhibited less than satisfactory performance in the subskill of converting within a system of measure while at the same time exhibiting particular strength on finding perimeter.

Results in the Problem Solving cluster improved as they were examined from District Factor Group A through J. For all items, the results of group A were considerably lower than that of the state. In all items, the results for groups I and J were considerably higher than those of the state. All groups performed poorly in the subskills of ratio and proportion, estimation, making change and working with problems dealing with fractions and decimals. This entire cluster seems to present greater difficulty than the other three clusters.

COMMUNITY TYPE—SIXTH GRADE MATHEMATICS

In the Computation cluster, student performance was rated as satisfactory. All community types indicated a need for additional work with decimals. Students in the urban communities performed lower than the students in suburban and regional districts on most items. All community types exhibited a high level of performance in working with whole numbers.

Student performance was relatively satisfactory on the Number Concept cluster. In all subskills in this cluster, the urban communities recorded lower performance levels while the suburban communities demonstrated the highest levels of proficiency. All community types achieved higher results in the areas of place value, numeration of whole numbers and solving equations. Areas in need of greater attention by all community types include, concept of percent, rounding of numbers, number line and factors.

Overall performance in the Measurement and Plane Figures cluster was satisfactory. Students in suburban and regional districts performed highest. The area of greatest strength was calculating perimeter. Metric measurement continues to present a problem for students in most community types.

Total student performance was rated as satisfactory in the Problem Solving and Applications cluster. While the suburban and regional districts' results were higher on most items, the lowest percents were obtained by the urban districts. The greatest variation in performance was noted on test items involving interpreting maps and drawings and finding averages.

SUMMARY

For the sixth grade test, the results were generally satisfactory. Highest performance was achieved in the Computation cluster with marginally satisfactory results for the Number Concepts cluster. Problem Solving continues to demonstrate a need for additional work. It is recommended that interdisciplinary strategies be used in the instruction of these skills.

PROGRESS SUMMARY

Sixth graders in 1978-79 showed a marked improvement in many Computation cluster skills compared to sixth graders in 1977-78. Particular improvement was noted in several areas involving the multiplication process of whole numbers, fractions and decimals. Sixth graders also showed improvement in all basic operations involving decimals. Addition of like fractions was one of the only skills in this cluster where performance declined.

In the Number Concepts cluster, pupil performance declined on items dealing with place value of numbers beyond hundreds, rounding whole numbers and numbers with decimals, locating points on a number line, recognizing inverse operations ($5 + 3 = 8$ is the same as $8 - 3 = 5$). The only area in this cluster where there was clear improvement over last year was in solving for the unknown in equations and inequalities.

In Measurement and Plane Figures, little progress was made on items involving metric units with the exception of liters and coverting within the same measurement system where a greater number of students appear to be familiar with the skill. Improvement was noted in the areas of reading a thermometer and calculating the perimeter of a square or rectangle.

As some items on the 1978-79 sixth grade mathematics test were analyzed statistically as being more difficult than the corresponding items on last year's test (items #23, 31, 67, 73), the resulting poor performance on those items prevents an accurate comparison of performance over time. In general, however, there was little progress made in problem solving by sixth graders.

TABLE V
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
SIXTH GRADE – MATHEMATICS

Cluster Averages

By Community Type

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND PLANE FIGURES	PROBLEM SOLVING AND APPLICATION	NUMBER OF CLUSTERS ABOVE STATE
State Averages	77.5%	71.4%	69.3%	75.9%	
Regional	79.8	74.3	77.6	80.6	4
Urban Center	69.2	58.4	52.1	61.6	0
Urban-Suburban	80.8	75.2	74.0	80.1	4
Suburban	82.3	79.0	77.7	84.1	4
Suburban-Rural	79.6	75.0	74.6	80.1	4
Rural	78.0	73.5	73.9	78.0	4
Rural Center	74.9	69.7	68.8	74.2	0
Rural Center-Rural	75.7	68.9	69.8	74.4	1

Figure A

By District Factor Group

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND PLANE FIGURES	PROBLEM SOLVING AND APPLICATION	NUMBER OF CLUSTERS ABOVE STATE
State Averages	77.5%	71.4%	69.3%	75.9%	
A	68.3	57.1	51.0	60.4	0
B	74.9	68.0	64.8	71.4	0
C	77.8	70.9	68.8	75.0	1
D	78.2	71.6	72.0	77.0	4
E	80.5	74.9	73.8	79.9	4
F	80.2	74.7	74.7	80.1	4
G	80.8	77.0	76.7	82.0	4
H	80.7	77.1	76.3	82.4	4
I	83.2	80.0	79.1	85.4	4
J	83.6	81.7	81.0	86.7	4
Z	78.1	73.1	73.0	77.8	4

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
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GRADE: SIX - MATHEMATICS

CLUSTER: COMPUTATION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
35	Addition of two four-digit or five-digit numbers with regrouping	93	Excellent	91	Satisfactory
1	Column addition of more than two three-digit numbers	93	Excellent	92	Marg. satisfactory
68	Addition in horizontal format of addends with an uneven number of digits with regrouping	92	Excellent	96	Marg. satisfactory
36	Subtraction of a four or five-digit number from a five-digit number with and without regrouping (borrowing)	94	Excellent	82	Excellent
69		83	Satisfactory	90	Satisfactory
3	Subtraction involving a four or five-digit number with regrouping (borrowing)	89	Satisfactory	82	Excellent
81	Mixed addition and subtraction	85	Satisfactory	88	Unsatisfactory
9	Multiplication of a two and three-digit multiplier	92	Excellent	87	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
37	Multiplication of a two and three-digit multiplier	86	Satisfactory	82	Excellent
91		76	Satisfactory	62	Excellent
26	Division: one and two-digit divisors without remainders	76	Satisfactory	68	Excellent
43		87	Satisfactory	85	Satisfactory
59	Division: one and two-digit divisors with remainders	82	Satisfactory	67	Excellent
71		66	Marg. satisfactory	87	Poor
8	Addition of like fractions with and without regrouping/with or without simplification	80	Satisfactory	90	Poor
38		69	Marg. satisfactory	82	Poor
72		89	Satisfactory	66	Satisfactory
74	Addition of mixed numbers without regrouping (carrying)	86	Satisfactory	88	Unsatisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
41	Subtraction of like fractions	86	Satisfactory	86	Marg. satisfactory
93	Multiplication of a whole number by a proper fraction	53	Unsatisfactory	43	Excellent
49	Multiplication of a proper fraction by a proper fraction	87	Satisfactory	48	Excellent
14	Addition of decimals without regrouping	88	Satisfactory	84	Excellent
42		83	Satisfactory	91	Poor
51	Addition of decimals with equal and unequal numbers of digits without regrouping	58	Unsatisfactory	55	Satisfactory
76		83	Satisfactory	83	Marg. satisfactory
80	Subtraction of decimals	86	Satisfactory	86	Marg. satisfactory
16		93	Excellent	88	Excellent
17	Multiplication of a whole number and a decimal	70	Satisfactory	19	Excellent

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Minimum Basic Skills Test
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GRADE: SIX - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
56	Multiplication of a whole number and a decimal	73	Satisfactory	74	Marg. satisfactory
84		69	Marg. satisfactory	77	Poor
19	Multiplication of decimals	61	Marg. satisfactory	53	Excellent
61		69	Marg. satisfactory	43	Excellent
58	Division of decimals: divisor without decimal	73	Satisfactory	66	Excellent
87		65	Marg. satisfactory	53	Excellent

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Minimum Basic Skills Test
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GRADE: SIX - MATHEMATICS

CLUSTER: NUMBER CONCEPTS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
4	Given five digits, write largest number using each digit once	84	Satisfactory	82	Satisfactory
20	Place value: up to five-digit numerals	89	Satisfactory	88	Marg. satisfactory
44		68	Marg. satisfactory	79	Poor
57	Place value: expanded notation - up to five digits	63	Marg. satisfactory	81	Poor
88		81	Satisfactory	65	Satisfactory
7	Numeration system, whole numbers	88	Satisfactory	93	Poor
55		86	Satisfactory	91	Poor
30	Numeration system, decimals	60	Marg. satisfactory	67	Poor
89		55	Unsatisfactory	60	Poor
34	Concept of percent	69	Marg. satisfactory	66	Satisfactory
87		59	Unsatisfactory	71	Poor
50	Rounding of numbers	51	Unsatisfactory	68	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: SIX - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
94	Rounding of numbers	36	Poor	54	Poor
5	Models for fractions	95	Excellent	87	Satisfactory
86	Fractions greater than one	56	Unsatisfactory	64	Poor
62	Equivalent fractions	72	Satisfactory	61	Satisfactory
82		78	Satisfactory	78	Marg. satisfactory
52	Equivalence	44	Unsatisfactory	51	Poor
28	Renaming fractions	77	Satisfactory	75	Satisfactory
96		68	Marg. satisfactory	72	Poor
18	Solving equations	84	Satisfactory	89	Poor
47		95	Excellent	43	Satisfactory
79		46	Unsatisfactory	93	Satisfactory
83	Inequalities	59	Unsatisfactory	55	Excellent
53	Number line - locating points on a number line	45	Unsatisfactory	50	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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GRADE: SIX - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
77	Number line - locating points on a number line	63	Marg. satisfactory	68	Poor
22	Recognition of factor or multiple or divisor	52	Unsatisfactory	79	Marg. satisfactory
40		64	Marg. satisfactory	42	Marg. satisfactory
11	Application of commutative and associative principles for addition and multiplication	79	Satisfactory	86	Poor
45		84	Satisfactory	85	Marg. satisfactory
21	Recognition of inverse operation: addition to subtraction; multiplication to division	72	Satisfactory	78	Poor
95		23	Poor	19	Excellent
6	Informal concept of identity: zero and one	90	Excellent	91	Marg. satisfactory
39		83	Satisfactory	83	Marg. satisfactory
63	Number patterns	69	Marg. satisfactory	54	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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GRADE: SIX - MATHEMATICS

CLUSTER: MEASUREMENT AND PLANE FIGURES

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
32	Length of object	55	Unsatisfactory	43	Satisfactory
48		71	Satisfactory	83	Poor
12	Measure to be used for length	70	Satisfactory	63	Poor
10	Measure for weight: appropriate unit	66	Marg. satisfactory	86	Unsatisfactory
46		86	Satisfactory	82	Satisfactory
78		58	Unsatisfactory	69	Poor
75	Measure for capacity: appropriate unit	80	Satisfactory	74	Excellent
13	Temperature measure: thermometer	65	Marg. satisfactory	56	Satisfactory
25	Converting within the same measuring system (metric or traditional)	38	Poor	48	Poor
85		46	Unsatisfactory	49	Unsatisfactory
15	Perimeter: triangles and rectangles	92	Excellent	89	Satisfactory

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Minimum Basic Skills Test
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GRADE: SIX - MATHEMATICS

CLUSTER: MEASUREMENT AND PLANE FIGURES (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
60	Perimeter: triangles and rectangles	88	Satisfactory	48	Excellent
92		72	Satisfactory	74	Satisfactory
2	Geometric figures: circle, triangle, square, and rectangle	80	Satisfactory	93	Poor
70		64	Marg. satisfactory	98	Unsatisfactory

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Minimum Basic Skills Test
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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - MATHEMATICS

CLUSTER: PROBLEM SOLVING AND APPLICATIONS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
23	Problems with reading: single and multi-operations	33	Poor	91	Not comparable
29		80	Satisfactory	68	Satisfactory
31		86	Satisfactory	80	Excellent
33		62	Marg. satisfactory	93	Not comparable
64		61	Marg. satisfactory	71	Poor
65		84	Satisfactory	87	Unsatisfactory
90		81	Satisfactory	66	Satisfactory
27	Ratio and proportion including practical applications	52	Unsatisfactory	74	Poor
67	Estimation	33	Poor	69	Not comparable
24	Average	53	Unsatisfactory	50	Satisfactory
54	Making change	54	Unsatisfactory	59	Poor
66	Interpretation: scale drawings and maps	76	Satisfactory	63	Marg. satisfactory

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Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: SIX - MATHEMATICS

CLUSTER: PROBLEM SOLVING AND APPLICATIONS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
98	Interpretation: graphs and charts	70	Satisfactory	80	Poor
99		88	Satisfactory	72	Satisfactory
100		76	Satisfactory	76	Marg. satisfactory
73	Computation involving money	73	Satisfactory	90	Marg. satisfactory

TABLE VI
SUMMMARY OF SKILL PERFORMANCE

SIXTH GRADE

CONTENT AREA	PERFORMANCE IN SKILL AREA	
	SATISFACTORY	IN NEED OF IMPROVEMENT
Reading	phonetic analysis syllabication roots contractions plurals synonyms and antonyms multiple meaning following directions drawing inferences alphabetical sequencing table of contents glossary index dictionary skills illustrative material	possessives identifying facts identifying main idea sequence of ideas or events summarizing information distinguishing fact/fiction
Mathematics	simple computation with whole numbers operations involving fractions numeration: whole numbers perimeter interpreting graphs computation with money	operations involving decimals place value concept or percent rounding fractions greater than one renaming fractions recognition of inverse operations number line measurement problems with reading problems with averaging, estimation, making change, ratio and proportion

CLUSTER COMMENTS

Student performance in the Word Recognition cluster was generally satisfactory with relatively little variation in the different skill areas. More variable performance on the skills relating to syllabication, possessives and contractions, however, points up the need for additional attention.

Overall, performance in the Reading Comprehension cluster was satisfactory. Performances in the areas of following directions and identifying factual information ranged from very satisfactory to excellent. Identification of main idea both stated and implied, identification of signal words, making inferences, identifying author's purpose and relating ideas were areas of satisfactory performance. However, there were areas which were only marginally satisfactory. These include determining meaning, distinguishing fact from opinion, and determining validity. The greatest weaknesses exhibited by ninth graders in the Comprehension cluster were noted for items requiring students to distinguish relevant from irrelevant material even though their performance was judged to be marginally satisfactory.

Performance in Study Skills ranged from very satisfactory to unsatisfactory. Better than satisfactory performance was noted in using parts of a book and using a diagram. Satisfactory performance was noted in identifying appropriate reference sources, using the dictionary for meaning and using charts. Marginally satisfactory performance was noted in the use of road maps. Although it is difficult to assess performance on the basis of a single item, it appears that many students have difficulty in identifying compass direction. Students continue to score poorly on items measuring the use of guide words.

DISTRICT FACTOR GROUPING—NINTH GRADE READING

An analysis of student performance in the Word Recognition cluster reveals a consistent pattern in which performance improves slightly as District Factor Groups move from A to J. The largest difference in performance is between District Factor Group A and all other groups with student performance in District Factor Group A continuing to be particularly lower. Performance in District Factor Groups V and Z was most similar to that of District Factor Groups B and C and consistently lower than performance in District Factor Groups D through J.

In the Reading Comprehension cluster, the performance of students in District Factor Group A continued to be consistently lower than that of students in the other groups. In the areas of identifying factual information and, following directions, the performance of students in District Factor Group A was closer to the statewide results although it still remains below the performance level of other District Factor Groups.

In the Study Skills cluster, items dealing with the use of guide words to locate a word in a dictionary and some items requiring use of dictionaries for meaning and spelling and the use of road maps showed weakness in all District Factor Groups particularly for students in District Factor Group A.

COMMUNITY TYPE—NINTH GRADE READING

Students in most community types performed at least on a satisfactory level in Reading Comprehension, except for a few scattered test items. The overall performance of vocational students was comparable to that of the other community types except for the urban center community type.

Specific weaknesses in the vocational community type were centered in the following skills areas: determining meaning, distinguishing fact/opinion/fiction, determining validity and distinguishing relevant from non-relevant information. Although the urban center community types' performance was lower than that of the other community types, students in that group performed better on items measuring literal skills than on those items measuring inferential skills.

Performance in the Study Skills cluster was similar for all community types except for the urban center community type whose students performed markedly lower in all skill areas. Particular weaknesses appeared for the vocational community type in using guide words and dictionary usage.

SUMMARY

Student performance on the ninth grade reading test was generally satisfactory with strengths exhibited in the Word Recognition cluster and the Literal Comprehension skills areas. Notable weaknesses occurred in the Study Skills items such as using reference materials and the inferential comprehension areas of distinguishing fact from opinion, distinguishing relevant from irrelevant information and determining validity.

PROGRESS SUMMARY

Ninth graders made satisfactory progress from 1977-78 to 1978-79 on items in the Word Recognition cluster of the Minimum Basic Skills reading test. The area of syllabication showed a slight decline and performance in identifying homonyms showed improvement, but overall progress was slight but steady in this cluster.

In the Reading Comprehension cluster, ninth graders clearly showed progress in the areas of signal words (i.e., but, however), identifying the main idea implied, making inferences, identifying author's purpose and relating ideas to situations not discussed. Skill areas which experienced declines from last year's performance level to this year's were determing the validity of the author's reasoning and distinguishing among fact, opinion and fiction. Mixed results were obtained from comparisons of performance in other areas in this cluster.

Generally satisfactory progress was shown in the Study Skills cluster although ninth graders in 1978-79 performed at lower level than ninth graders in 1977-78 in the use of dictionary guide words.

TABLE VII
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
NINTH GRADE – READING

Cluster Averages

By Community Type

	WORD RECOGNITION	READING COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	85.8%	79.8%	83.0%	
Vocational	82.0	74.5	79.2	0
Regional	89.3	84.4	87.0	3
Urban Center	77.5	68.7	73.7	0
Urban-Suburban	88.3	82.8	85.5	3
Suburban	90.0	85.4	87.7	3
Suburban-Rural	87.5	82.6	85.2	3
Rural	84.7	79.3	82.7	1
Rural Center	85.9	79.9	82.7	2
Rural Center-Rural	84.5	77.9	81.9	0

Figure A

By District Factor Group

	WORD RECOGNITION	READING COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	85.8%	79.8%	83.0%	
A	76.0	66.5	72.0	0
B	83.0	76.6	80.1	0
C	84.7	78.1	81.5	0
D	87.1	81.4	84.6	3
E	88.1	82.8	85.7	3
F	88.5	83.0	85.9	3
G	89.1	84.1	86.7	3
H	89.5	84.9	87.3	3
I	91.3	87.2	88.9	3
J	91.1	87.2	89.1	3
V	82.0	74.5	79.2	0
Z	84.6	80.0	82.5	1

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: WORD RECOGNITION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
8	Identify word roots in different positions	87	Satisfactory	88	Satisfactory
9		79	Marg. satisfactory	85	Marg. satisfactory
10		94	Satisfactory	67	Satisfactory
40	Identify correct syllabication of words	69	Unsatisfactory	97	Unsatisfactory
41		77	Marg. satisfactory	81	Marg. satisfactory
42		92	Satisfactory	79	Satisfactory
82	Possessives and contractions	80	Marg. satisfactory	74	Marg. satisfactory
83		84	Satisfactory	95	Satisfactory
84		94	Satisfactory	91	Satisfactory
78	Identify meaning of words with multiple meanings using context clues	82	Satisfactory	85	Satisfactory
79		86	Satisfactory	84	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
80	Identify meaning of words with multiple meanings using context clues	79	Marg. satisfactory	74	Marg. satisfactory
81		84	Satisfactory	83	Satisfactory
1	Identify synonyms of words in context	92	Satisfactory	91	Satisfactory
2		95	Excellent	94	Excellent
3		87	Satisfactory	97	Satisfactory
4		88	Satisfactory	83	Satisfactory
5		88	Satisfactory	94	Satisfactory
37	Identify antonyms of words in context	89	Satisfactory	87	Satisfactory
38		94	Excellent	92	Excellent
39		67	Unsatisfactory	74	Unsatisfactory
13	Identify the appropriate homonym in context	76	Marg. satisfactory	93	Marg. satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
14	Identify the appropriate homonym in context	96	Excellent	98	Excellent
15		94	Excellent	79	Excellent
43	Identify meanings of word forms in context (roots, contractions, possessives, tenses, etc.)	84	Marg. satisfactory	81	Marg. satisfactory
44		94	Satisfactory	95	Satisfactory
45		96	Satisfactory	96	Satisfactory
46		94	Satisfactory	87	Satisfactory
47		87	Satisfactory	76	Satisfactory
48		49	Poor	89	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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GRADE: NINE - READING

CLUSTER: READING COMPREHENSION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
21	Identify main idea when stated	94	Satisfactory	94	Satisfactory
25		94	Satisfactory	88	Satisfactory
96		74	Marg. satisfactory	83	Marg. satisfactory
99		81	Marg. satisfactory	79	Satisfactory
23	Identify factual information when stated	96	Satisfactory	82	Satisfactory
26		96	Satisfactory	92	Satisfactory
31		88	Satisfactory	94	Satisfactory
58		98	Excellent	95	Excellent
59		97	Excellent	97	Excellent
60		88	Satisfactory	92	Satisfactory
62		95	Satisfactory	86	Satisfactory
70		92	Satisfactory	89	Satisfactory
95		90	Satisfactory	88	Satisfactory

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Minimum Basic Skills Test
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GRADE: NINE - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
109	Identify factual information when stated	78	Marg. satisfactory	73	Marg. satisfactory
29	Identify "signal words" in context (but, however, etc.)	94	Satisfactory	88	Satisfactory
49		88	Satisfactory	78	Satisfactory
50		95	Excellent	95	Excellent
51		78	Marg. satisfactory	69	Marg. satisfactory
104		88	Satisfactory	77	Satisfactory
22	Following directions	94	Satisfactory	93	Satisfactory
52		92	Satisfactory	90	Satisfactory
53		98	Excellent	98	Excellent
54		97	Excellent	92	Excellent
64		97	Excellent	93	Excellent
65		92	Satisfactory	88	Satisfactory

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GRADE: NINE - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
66	Following directions	95	Excellent	93	Excellent
33	Identify main idea or topic when implied	89	Satisfactory	83	Satisfactory
67		90	Satisfactory	91	Satisfactory
71		83	Satisfactory	85	Satisfactory
105		89	Satisfactory	77	Satisfactory
108		65	Unsatisfactory	55	Unsatisfactory
19	Make inferences	75	Marg. satisfactory	84	Marg. satisfactory
24		62	Unsatisfactory	89	Unsatisfactory
30		84	Satisfactory	58	Satisfactory
34		78	Marg. satisfactory	78	Marg. satisfactory
61		87	Satisfactory	81	Satisfactory
63		87	Satisfactory	82	Satisfactory
68		80	Satisfactory	79	Satisfactory

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Minimum Basic Skills Test
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
72	Make inferences	69	Unsatisfactory	82	Unsatisfactory
85		95	Excellent	93	Excellent
86		87	Satisfactory	85	Satisfactory
94		84	Satisfactory	77	Satisfactory
102		90	Satisfactory	87	Satisfactory
110		84	Satisfactory	60	Satisfactory
73	Determine meaning of figurative language	64	Unsatisfactory	63	Unsatisfactory
88		82	Satisfactory	61	Satisfactory
91		77	Marg. satisfactory	79	Marg. satisfactory
36	Distinguish among fact, opinion, and fiction	82	Satisfactory	79	Satisfactory
87		66	Unsatisfactory	70	Unsatisfactory
92		72	Marg. satisfactory	68	Marg. satisfactory

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Marginally Satisfactory - minimally acceptable performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE- READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
93	Distinguish among fact, opinion, and fiction	78	Marg. satisfactory	79	Marg. satisfactory
100		73	Marg. satisfactory	76	Marg. satisfactory
27	Identify author's purpose	87	Satisfactory	84	Satisfactory
69		94	Excellent	92	Excellent
90		86	Satisfactory	84	Satisfactory
32	Determine validity of author's reasoning	79	Marg. satisfactory	67	Marg. satisfactory
35		67	Unsatisfactory	64	Unsatisfactory
89		72	Marg. satisfactory	71	Marg. satisfactory
20	Relate ideas or information in passage to situations not discussed	80	Satisfactory	81	Satisfactory
103		80	Satisfactory	55	Satisfactory
106		71	Marg. satisfactory	68	Marg. satisfactory

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Minimum Basic Skills Test
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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
28	Distinguish between relevant and irrelevant information	82	Satisfactory	78	Satisfactory
101		52	Poor	67	Poor
107		75	Marg. satisfactory	65	Marg. satisfactory

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Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: STUDY SKILLS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
11	Identify appropriate reference source	87	Satisfactory	87	Satisfactory
12		82	Satisfactory	86	Satisfactory
6	Use of guide words	79	Marg. satisfactory	87	Marg. satisfactory
7		65	Unsatisfactory	73	Unsatisfactory
74	Use of dictionary for selecting correct word meaning and spelling	97	Excellent	74	Excellent
75		71	Marg. satisfactory	89	Marg. satisfactory
76		81	Satisfactory	84	Satisfactory
77		90	Satisfactory	54	Satisfactory
16	Use parts of a book (table of contents, index)	86	Satisfactory	85	Satisfactory
55		98	Excellent	96	Excellent
56	Use of road map	94	Satisfactory	95	Satisfactory
57		74	Marg. satisfactory	69	Marg. satisfactory

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Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - READING

CLUSTER: STUDY SKILLS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
97	Use of chart	87	Satisfactory	94	Satisfactory
98		91	Satisfactory	87	Satisfactory
17	Use of cartoon/picture/diagram	92	Satisfactory	90	Satisfactory
18		90	Satisfactory	84	Satisfactory

1978-79 RESULTS
NINTH GRADE MATHEMATICS

CLUSTER COMMENTS

Performance on the majority of the Computation items ranged from excellent to satisfactory. Regrouping of whole numbers and fractions appears to present difficulty. There are weaknesses evident in the manipulation of fractions and in the division of decimals. Percent and powers of ten also need more instructional emphasis.

Performance on the majority of items in the Number Concept cluster was satisfactory. Weaknesses were evident on items involving changing fractions to decimals and rounding decimals.

The results in the Measurement and Geometry cluster were marginally satisfactory. More attention is needed in metric measurement and terminology, the concepts of volume and temperature and applications of formulas. Additional emphasis should also be placed on geometric terminology, especially as applied to circles.

Pupil performance in the Problem Solving cluster was rated as satisfactory. Weaknesses were noted in the interpretation of circle graphs, simple interest problems and discounts.

DISTRICT FACTOR GROUPING—NINTH GRADE MATHEMATICS

In the Computation cluster, performance with whole numbers was generally excellent to satisfactory for all District Factor Groups. Greater differences among the District Factor Groups begin to appear in the area of Computation with fractions, decimals, and percents with District Factor Group A being the lowest and District Factor Groups I and J being the highest. Lower performance was noted for all District Factor Groups in division of decimals by a multiple of ten and percents.

When the number Concepts cluster is examined by District Factor Groups, item performance generally follows a typical trend: District Factor Group A shows poorer performance than other District Factor Groups. In many instances the difference between District Factor Group A and all other groups is greater than ten percent. The difference between District Factor Group A and District Factor Groups I and J is frequently twenty percent or more. The items showing the greatest discrepancy between A and the higher performing groups were in the area of fractions, conversion of fractions to decimals, rounding decimals, rounding whole numbers, properties of odd and even.

In the Measurement and Geometry cluster, the pattern that evolved in the Number Concept cluster continues and the difference in levels of performance between District Factor Group A and District Factor Group I and J has increased for most items.

In most instances, students in District Factor Group I and J exhibited a considerably higher performance level in the Problem Solving cluster than students in other groups, while students in Group A achieved the lowest percentages on all items in this cluster. Performance was low in all groups on problems dealing with the application of percent.

COMMUNITY TYPE—NINTH GRADE MATHEMATICS

Community type performance was varied in the Computational cluster. All community types performed satisfactorily in the computation of whole numbers. Suburban and regional communities generally performed better on Computational items. Urban and vocational districts performed at the lower level. Urban communities scored appreciably lower in computation with fractions, decimals and problems with percents.

The pattern of higher performance in suburban and regional communities continues in the Number Concept cluster. The vocational group tends to have lower performance levels than most other groups, but urban performance on most items tends to be below the levels of the vocational group and well below the better performing groups.

The same pattern as cited in the number concepts cluster holds true in the Measurement and Geometry cluster, although performance for all community types was generally below that in the Computation cluster.

The Problem Solving cluster presents similar results with the suburban and regional communities showing the strongest performance followed by the rural groups, those in the vocational community, and finally, the urban community. Performance on most items requiring applications using percents was low for all groups.

SUMMARY

Overall performance on the ninth grade mathematics test was considered to be satisfactory. The greatest strengths appeared in the Computation and Problem Solving clusters. Although strengths were noted, additional attention is needed on the division of fractions, and problems involving interest and discount.

Performance in the Number Concepts and Measurement/Geometry clusters were considered to be generally satisfactory. However, particular attention should be given to the areas of metric measurement, metric terminology, decimals and fractions.

PROGRESS SUMMARY

The comparison of 1978-79 ninth graders performance in mathematics with the performance on the 1977-78 ninth grade mathematics test revealed marginally satisfactory progress in the majority of skills areas. Where performance had been satisfactory or better last year, little progress was made. For some items in the Computation cluster, particularly those dealing with decimals, improvement was noted. The Number Concepts cluster also produced marginally satisfactory progress.

In Measurement and Geometry, performance declined most noticeably in the areas of metric conversion, right angles, geometric concepts related to the circle, calculating temperature differences and making change. Ninth graders made good progress in items related to determining area, weight and perimeter using standard (non-metric) measurement.

The Problem Solving skills of this year's ninth graders showed improvement over those of last year's group in calculating sales tax and discounts, using ratios, and estimating mileage. However, the students were less proficient this year in locating places on a map, calculating simple interest and interpreting data from a circle graph.

TABLE VIII
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
NINTH GRADE – MATHEMATICS

Cluster Averages

By Community Type

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND SIMPLE GEOMETRY	PROBLEM SOLVING	NUMBER OF CLUSTERS ABOVE STATE
State Averages	79.5%	79.8%	72.3%	72.9%	
Vocational	75.6	75.3	65.7	67.7	0
Regional	83.3	85.1	79.0	78.1	4
Urban Center	70.7	67.5	57.7	60.8	0
Urban-Suburban	82.2	82.9	75.6	75.9	4
Suburban	84.1	86.2	80.6	79.3	4
Suburban-Rural	81.1	82.2	75.5	75.6	4
Rural	79.3	79.8	71.1	72.6	1
Rural Center	79.2	80.6	71.3	73.2	2
Rural Center-Rural	79.0	79.7	69.6	71.2	0

Figure A

By District Factor Group

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT AND SIMPLE GEOMETRY	PROBLEM SOLVING	NUMBER OF CLUSTERS ABOVE STATE
State Averages	79.5%	79.8%	72.3%	72.9%	
A	69.9	65.2	54.9	58.5	0
B	76.9	76.1	66.6	69.2	0
C	78.4	77.8	69.3	71.5	0
D	80.4	81.3	73.8	74.1	4
E	82.0	83.0	75.2	75.8	4
F	82.1	83.4	76.8	76.8	4
G	83.1	84.7	78.5	77.6	4
H	87.7	85.1	79.0	78.6	4
I	85.9	88.0	83.6	81.1	4
J	85.2	88.0	83.2	80.9	4
V	75.6	75.3	65.7	67.7	0
Z	79.8	80.8	75.3	73.5	4

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: COMPUTATION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
1	Addition of multiple places without carrying	97	Excellent	96	Marg. satisfactory
34		96	Excellent	98	Unsatisfactory
61	Addition of multiple places with carrying	93	Excellent	90	Satisfactory
67		94	Excellent	94	Marg. satisfactory
3	Subtraction of multiple places without borrowing	99	Excellent	97	Satisfactory
65		97	Excellent	96	Marg. satisfactory
7	Subtraction of multiple places with borrowing	94	Excellent	92	Satisfactory
37		91	Excellent	93	Unsatisfactory
49	Subtraction with two or more consecutive zeros	85	Satisfactory	85	Marg. satisfactory
45	Multiplication	81	Satisfactory	83	Unsatisfactory
16	Multiplication with zero	94	Excellent	89	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
69	Multiplication with zero	91	Excellent	93	Unsatisfactory
5	Division: one-digit divisor without remainder	88	Satisfactory	91	Unsatisfactory
71	Division: two-digit divisor without remainder	74	Satisfactory	73	Marg. satisfactory
23	Division: one and two-digit divisor with remainder	86	Satisfactory	82	Excellent
52		90	Excellent	87	Satisfactory
2	Addition and subtraction of fractions in vertical format	94	Excellent	93	Marg. satisfactory
42		80	Satisfactory	78	Satisfactory
18	Addition and subtraction of mixed fractions	81	Satisfactory	82	Marg. satisfactory
53		58	Unsatisfactory	60	Unsatisfactory
68		93	Excellent	92	Marg. satisfactory
87		60	Unsatisfactory	55	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
47	Multiplication and division of a whole number by a proper fraction	80	Satisfactory	79	Marg. satisfactory
82		60	Unsatisfactory	57	Satisfactory
8	Multiplication of a whole number by a mixed number	66	Marg. satisfactory	65	Marg. satisfactory
36	Multiplication and division of a proper fraction by a proper fraction	93	Excellent	90	Satisfactory
94		75	Satisfactory	65	Excellent
29	Addition of decimals	86	Satisfactory	84	Satisfactory
70		97	Excellent	90	Excellent
54	Subtraction of decimals	73	Satisfactory	64	Excellent
74		91	Excellent	85	Excellent
41	Multiplication of decimals	78	Satisfactory	78	Marg. satisfactory
9	Multiplication of decimals: zero	60	Unsatisfactory	66	Poor
81		79	Satisfactory	75	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
80	Division of decimals with whole number divisor	77	Satisfactory	74	Satisfactory
20	Division of decimals: divisor with decimal	58	Unsatisfactory	56	Satisfactory
44	Division of decimals: answer less than 1	76	Satisfactory	74	Satisfactory
76	Division of decimals by a multiple of 10	49	Poor	44	Excellent
26	Percent of a number	63	Marg. satisfactory	47	Excellent
72		65	Marg. satisfactory	78	Poor
62	A number when a percent of it is known	45	Unsatisfactory	41	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: NUMBER CONCEPTS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
35	Two equivalent fractions	87	Satisfactory	66	Satisfactory
83		80	Satisfactory	76	Excellent
21	Relative size (comparing) of simple fractions	84	Satisfactory	79	Excellent
88	Changing from a mixed number to an improper fraction or from an improper fraction to a mixed number	87	Satisfactory	88	Marg. satisfactory
55	Changing fractions to decimals	54	Unsatisfactory	57	Unsatisfactory
10	Changing decimals to fractions	72	Satisfactory	71	Marg. satisfactory
86	Changing percent to a decimal	81	Satisfactory	81	Marg. satisfactory
31	Changing a decimal to percent	81	Satisfactory	80	Marg. satisfactory
63	Rounding of decimals greater than or/less than one	64	Marg. satisfactory	55	Excellent
85		59	Unsatisfactory	69	Poor
6	Rounding of whole numbers	74	Satisfactory	73	Marg. satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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GRADE: NINE - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
33	Properties of numbers: odd, even	81	Satisfactory	97	Marg. satisfactory
48	Concept of exponents	88	Satisfactory	76	Excellent
4	Properties of one and zero in addition and multiplication	95	Excellent	94	Marg. satisfactory
58		87	Satisfactory	88	Marg. satisfactory
92		84	Satisfactory	93	Marg. satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
11	Length	78	Satisfactory	84	Poor
22	Area	72	Satisfactory	62	Excellent
43	Weight	67	Marg. satisfactory	63	Excellent
32	Temperature	60	Unsatisfactory	80	Unsatisfactory
51	Length - metric	42	Unsatisfactory	51	Poor
59		91	Excellent	45	Excellent
12	Area - metric	44	Unsatisfactory	52	Poor
84	Weight - metric	69	Marg. satisfactory	82	Poor
25	Rectangle with formula	83	Satisfactory	81	Satisfactory
89	Square with formula	64	Marg. satisfactory	66	Unsatisfactory
90	Triangle with formula	63	Marg. satisfactory	67	Poor
60	Circle with formula	52	Unsatisfactory	45	Excellent
73	Time	83	Satisfactory	64	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
46	Money	86	Satisfactory	90	Poor
24	Quantity	85	Satisfactory	83	Satisfactory
13	Geometric concepts: perimeter, right angle	62	Unsatisfactory	76	Poor
19		89	Satisfactory	86	Satisfactory
75	Geometric relations: parallel lines	79	Satisfactory	81	Unsatisfactory
27	Circles: identification of parts of a circle	72	Satisfactory	94	Marg. satisfactory
28		68	Marg. satisfactory	80	Poor
66	Circles: relationship between radius and a diameter	57	Unsatisfactory	57	Marg. satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: PROBLEM SOLVING

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
77	Reading data from tables or charts	89	Satisfactory	87	Satisfactory
78		63	Marg. satisfactory	88	Unsatisfactory
79		70	Satisfactory	63	Excellent
38	Interpretation of data from circle graphs	91	Excellent	93	Unsatisfactory
39		47	Unsatisfactory	68	Unsatisfactory
40		81	Satisfactory	54	Satisfactory
30	Reading maps: location of places	90	Excellent	94	Poor
57	Simple interest	37	Poor	51	Poor
15	Sales tax	74	Satisfactory	69	Excellent
93	Discount	57	Unsatisfactory	46	Excellent
56	Average (arithmetic mean)	75	Satisfactory	77	Unsatisfactory
50	Ratio - proportion	86	Satisfactory	50	Excellent

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: NINE - MATHEMATICS

CLUSTER: PROBLEM SOLVING (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
14	Simple application of basic operations of arithmetic (addition, subtraction, multiplication and division)	90	Excellent	88	Satisfactory
64		62	Marg. satisfactory	92	Marg. satisfactory
91	Reading maps: estimations of mileage	88	Satisfactory	80	Excellent
17	Estimation	74	Satisfactory	67	Excellent
95	Approximation	80	Satisfactory	63	Satisfactory

TABLE IX
SUMMARY OF SKILL PERFORMANCE

NINTH GRADE

	PERFORMANCE IN SKILL AREA	
CONTENT AREA	SATISFACTORY	IN NEED OF IMPROVEMENT
Reading	root words possessives synonyms, antonyms identifying meanings identifying facts identifying signal words following directions implied main idea inferences identifying author's purpose dictionary skills charts, maps, diagrams	syllabication main idea determine meaning determine fact/opinion/fiction determine validity relevant/irrelevant using guide words
Mathematics	basic operations with whole numbers number concepts money map reading average ratio/proportion	mixed fractions operations with fractions operations with decimals percent metric measurement geometric formulas parts of a circle circle graphs interest

1978-79 RESULTS
ELEVENTH GRADE READING

CLUSTER COMMENTS

Performance on the Word Recognition skills of identifying meaning and identifying synonyms was excellent, while performance was satisfactory on identifying antonyms. Performance was less than satisfactory for the items requiring students to identify the meaning of forms in context and those items which assessed root word identification skills.

Eleventh graders' performance in the Reading Comprehension cluster ranged from excellent to marginally satisfactory. Excellent performance was noted in identifying the main ideas as stated, while satisfactory performance was noted in identifying the main idea implied, identifying factual information, following directions, making inferences, determining meaning, and distinguishing between relevant and irrelevant information. Marginally satisfactory performance was exhibited in identifying signal words, distinguishing fact, fiction and opinion, determining validity and relating ideas. No definitive conclusions were drawn about student performance in the area of identifying the author's purpose because of the wide range of performance on the items in that area.

In the Study Skills cluster, students exhibited very satisfactory performance in using maps and charts, and in identifying appropriate reference sources. Only marginally satisfactory performance was demonstrated in the use of the reference materials.

DISTRICT FACTOR GROUPING—ELEVENTH GRADE READING

Performance of all District Factor Groupings was similar in the areas of identifying meaning of words and identifying synonyms. In identifying antonyms, all District Factor Groupings performed similarly except for District Factor Group A where performance was lower. In the area of identifying forms of words in context, District Factor Groups C through H and Z performed in a comparable fashion, while District Factor Groups I and J performed generally higher and District Factor Groups A, B and V performed generally lower.

Student performance in the Reading Comprehension cluster followed a pattern similar to that observed in other cluster areas: as the District Factor Groups move from A to J, student performance improved. Relatively little difference in performance among all District Factor Groups was observed in the area of identifying main ideas as stated. On the items assessing student's skill in identifying factual information, performance was relatively similar. On the remaining items, District Factor Groups A and V performed at a lower level than all other District Factor Groups. District Factor Groups A and V's performance in recognizing signal words was also lower than that of all other groups. District Factor Group V, however, performed better than A in the areas of making inferences, determining meaning and on some items in the area of distinguishing fact from fiction although students in both of these groups performed below the other groups.

Performance was relatively comparable across all District Factor Groups in the areas of identifying reference sources and using maps and charts. Performance in the use of these reference materials showed a wider range of performance with District Factor Groups A and V at the lower end.

COMMUNITY TYPE—ELEVENTH GRADE READING

Students in urban, suburban and rural areas performed equivalently on word recognition items dealing with identifying the meaning of words and identifying synonyms. Students in urban areas and in vocational schools performed at a lower level than their suburban and rural counterparts in identifying the meaning of word forms in context and identifying antonyms.

In the areas of identifying factual information when stated, identifying main idea when stated, and distinguishing relevant from irrelevant information, performance varied only slightly among students in each community type. Identifying signal words such as "however" and "prior to" produced poorer performance among students in urban areas and vocational schools and generally higher performance for students in regional schools and suburban areas.

In the skills of following directions, identifying main idea when implied, making inferences, distinguishing fact from fiction, determining meaning, relating ideas to situations not discussed, and determining validity, students in the majority of community types performed in a consistent manner except for the lower performance of students in urban areas and vocational schools.

In identifying reference sources and using maps and charts, performance was comparable for all community type groups. Urban and vocational area students performed lower than students in other community type on items assessing the use of reference material.

SUMMARY

Eleventh grade reading performance ranged from excellent to marginally satisfactory. Particularly in the Word Recognition cluster, the most basic items elicited the most positive performance, while items requiring a more developed ability demonstrated the weakest performance. Items requiring students to identify signal words in context (i.e. but, however, since), posed some difficulty for many eleventh graders as did certain items requiring the ability to make inferences from given material. Eleventh graders performed satisfactorily in Study Skill areas dealing with the identification of appropriate reference sources, and in the use of maps and illustration. Only marginally satisfactory performance was exhibited on items requiring students to demonstrate their ability to use reference materials.

PROGRESS SUMMARY

In general, eleventh graders progress in identifying the meaning of words with multiple meanings and in identifying synonyms remained satisfactory from the 1977-78 test to 1978-79. Progress was less than satisfactory in the areas of identifying antonyms and identifying the meaning of word forms in context.

Satisfactory progress was made in Literal Comprehension areas such as identifying main ideas as stated, determining meaning, determining validity, relating ideas to situations not discussed and distinguishing between relevant and irrelevant information.

Overall performance in making inferences, and identifying author's purpose was satisfactory although approximately one half of the items showed a decrease in performance from last year.

A decline in performance was also observed in the area of distinguishing fact from fiction and/or opinion.

Generally satisfactory progress was made from 1977-78 to 1978-79 in the Study Skills cluster. However, there was a decline in the performance level of eleventh graders in the area of using reference materials.

TABLE X
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
ELEVENTH GRADE – READING

Cluster Averages

By Community Type

	WORD RECOGNITION	READING COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	91.8%	85.3%	89.9%	
Vocational	87.9	78.6	85.5	0
Regional	93.9	88.1	92.2	3
Urban Center	86.1	77.6	84.1	0
Urban-Suburban	93.3	87.2	91.4	3
Suburban	94.1	88.8	92.3	3
Suburban-Rural	92.7	86.5	90.8	3
Rural	91.3	83.8	88.9	1
Rural Center	91.1	83.9	89.4	0
Rural Center-Rural	91.2	83.9	89.6	0

Figure A

By District Factor Group

	WORD RECOGNITION	READING COMPREHENSION	STUDY SKILLS	NUMBER OF CLUSTERS ABOVE STATE
State Averages	91.8%	85.3%	89.9%	
A	85.2	75.9	82.8	0
B	89.2	81.9	87.6	0
C	91.0	83.8	89.0	0
D	92.2	85.5	90.5	3
E	92.9	86.5	91.4	3
F	93.6	87.4	91.5	3
G	93.8	88.2	92.0	3
H	93.9	88.3	92.0	3
I	95.1	90.3	93.4	3
J	94.7	90.2	93.3	3
V	87.9	78.6	85.5	0
Z	91.0	83.9	88.8	0

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: WORD RECOGNITION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
37	Identify meaning of words with multiple meanings using context clues	98	Satisfactory	91	Good
38		94	Satisfactory	97	Satisfactory
39		96	Excellent	99	Satisfactory
40		98	Excellent	84	Good
41		94	Excellent	94	Satisfactory
1	Identify synonyms of words in context	98	Excellent	98	Satisfactory
2		96	Satisfactory	99	Satisfactory
3		99	Excellent	98	Satisfactory
4		98	Excellent	89	Satisfactory
5		99	Excellent	99	Satisfactory
74	Identify antonyms of words in context	85	Satisfactory	95	Unsatisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: WORD RECOGNITION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
75	Identify antonyms of words in context	91	Satisfactory	97	Unsatisfactory
76		93	Satisfactory	98	Unsatisfactory
77		91	Satisfactory	98	Unsatisfactory
78		90	Satisfactory	95	Unsatisfactory
6	Identify meanings of word forms in context (tenses, possessives, plurals, etc.)	68	Unsatisfactory	81	Poor
7		74	Marg. satisfactory	85	Poor
8		82	Satisfactory	85	Satisfactory
9		84	Satisfactory	97	Unsatisfactory
10		89	Satisfactory	91	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
12	Identify main idea when stated	97	Excellent	98	Satisfactory
18		99	Excellent	98	Satisfactory
35		95	Satisfactory	95	Satisfactory
53		99	Excellent	98	Satisfactory
64		98	Excellent	98	Satisfactory
82		91	Satisfactory	99	Satisfactory
13	Identify factual information when stated	82	Unsatisfactory	98	Unsatisfactory
20		96	Satisfactory	98	Satisfactory
61		93	Satisfactory	98	Satisfactory
62		93	Satisfactory	96	Satisfactory
63		97	Satisfactory	92	Satisfactory
65		93	Satisfactory	97	Unsatisfactory
66		98	Satisfactory	98	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
68	Identify factual information when stated	88	Satisfactory	90	Satisfactory
84		93	Satisfactory	98	Satisfactory
86		96	Satisfactory	97	Satisfactory
94		97	Excellent	89	Good
95		98	Excellent	82	Good
99		83	Satisfactory	97	Unsatisfactory
105		72	Marg. satisfactory	72	Satisfactory
106		77	Marg. satisfactory	82	Unsatisfactory
11	Identify "signal words" in context	68	Unsatisfactory	76	Unsatisfactory
17		71	Marg. satisfactory	68	Satisfactory
27		83	Satisfactory	94	Unsatisfactory
28		85	Marg. satisfactory	87	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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Satisfactory - adequate performance
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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
108	Identify "signal words" in context	89	Marg. satisfactory	88	Satisfactory
34	Following directions	61	Unsatisfactory	74	Poor
50		94	Satisfactory	92	Satisfactory
51		98	Excellent	99	Satisfactory
52		92	Satisfactory	93	Satisfactory
85		81	Satisfactory	94	Unsatisfactory
29	Identify main idea or topic when implied	80	Marg. satisfactory	87	Unsatisfactory
55		74	Marg. satisfactory	61	Excellent
67		85	Marg. satisfactory	96	Unsatisfactory
87		86	Marg. satisfactory	71	Good
97		95	Satisfactory	98	Satisfactory
102		88	Satisfactory	85	Satisfactory
16	Make inferences	84	Satisfactory	80	Good

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
19	Make inferences	89	Satisfactory	94	Unsatisfactory
21		83	Satisfactory	88	Unsatisfactory
23		94	Satisfactory	97	Satisfactory
25		87	Satisfactory	75	Good
26		96	Excellent	97	Satisfactory
30		82	Satisfactory	94	Unsatisfactory
46		84	Satisfactory	79	Good
47		73	Marg. satisfactory	88	Poor
54		70	Marg. satisfactory	96	Unsatisfactory
93		88	Satisfactory	82	Good
96		80	Satisfactory	87	Unsatisfactory
100		81	Satisfactory	85	Unsatisfactory
107		69	Marg. satisfactory	67	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
91	Determine meaning of figurative language	97	Excellent	87	Satisfactory
92		90	Satisfactory	79	Good
101		86	Satisfactory	89	Satisfactory
14	Distinguish among fact, fiction, and opinion	74	Marg. satisfactory	94	Poor
24		64	Unsatisfactory	82	Poor
56		88	Satisfactory	73	Good
90		82	Satisfactory	82	Satisfactory
98		80	Satisfactory	85	Unsatisfactory
69	Identify author's purpose	87	Satisfactory	89	Satisfactory
89		65	Unsatisfactory	83	Poor
103		67	Unsatisfactory	71	Unsatisfactory
109		91	Satisfactory	91	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Marginally Satisfactory - minimally acceptable performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: READING COMPREHENSION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
70	Determine validity of author's reasoning	91	Satisfactory	79	Good
71		80	Satisfactory	65	Good
72		70	Marg. satisfactory	91	Poor
73		78	Marg. satisfactory	92	Unsatisfactory
22	Relate ideas or information given in passage to situations not discussed	73	Marg. satisfactory	90	Poor
31		79	Marg. satisfactory	59	Excellent
32		90	Satisfactory	84	Good
33		90	Satisfactory	93	Satisfactory
36	Distinguish between relevant and irrelevant information	91	Satisfactory	80	Good
83		97	Excellent	97	Satisfactory
88		94	Satisfactory	94	Satisfactory
110		54	Poor	63	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: STUDY SKILLS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
15	Identify appropriate reference sources	96	Satisfactory	99	Satisfactory
42		98	Excellent	97	Satisfactory
43		97	Excellent	97	Satisfactory
44		97	Excellent	97	Satisfactory
104		90	Satisfactory	92	Satisfactory
48	Use appropriate reference materials	98	Excellent	99	Satisfactory
49		73	Marg. satisfactory	99	Unsatisfactory
79		77	Unsatisfactory	63	Good
80		76	Marg. satisfactory	90	Unsatisfactory
81		80	Marg. satisfactory	79	Unsatisfactory
45	Use road maps, charts, illustrations	94	Satisfactory	98	Satisfactory
57		97	Satisfactory	97	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - READING

CLUSTER: STUDY SKILLS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
58	Use road maps, charts, illustrations	95	Satisfactory	80	Good
59		92	Excellent	88	Good
60		98	Excellent	93	Satisfactory

CLUSTER COMMENTS

In the Computation cluster, performance with whole numbers was excellent with the exception of division items where performance was satisfactory. Performance on decimals and fraction items was mixed, showing some satisfactory levels and others marginally satisfactory. The poorest performance was found in division of decimals by multiples of ten, and finding the number when the percent of it is known.

The Number Concepts cluster showed excellent to satisfactory performance levels on items other than fraction to decimal conversion and rounding decimals, where the performance was found to be only marginally satisfactory.

Measurement and Geometry performance was generally satisfactory, while the most serious needs in this cluster appear in reading temperature, metric measurement and relationships involving circles.

Problem Solving performance was generally satisfactory with a few items showing excellent performance levels. However, relatively weaker performance was noted in interpreting line graph data, calculating discount, completing a check stub and estimating mileage from a map.

DISTRICT FACTOR GROUPING—ELEVENTH GRADE MATHEMATICS

In the Computation cluster, the overall performance was generally satisfactory to excellent for all District Factor Group categories. There was little difference among the groups in the computation of whole numbers. The greatest differences between the highest and lowest performing groups were found in problems dealing with decimals and percents.

Student performance in the Number Concept cluster was generally satisfactory for all District Factor Groups. The difference in the performance level between District Factor Group A and District Factor Group I and J is considerable. The greatest divergence appeared in changing fractions to decimals and rounding.

With the exception of the metric items, the overall performance in the Measurement and Geometry cluster was generally satisfactory. The greatest differences between the highest and lowest scoring groups appear in the area of temperature, triangle with formula, right angle, circle and metric problems.

Performance in the Problem Solving cluster is generally satisfactory for most District Factor Groups with the notable exception of the item dealing with the interpretation of data from a line graph. Widest discrepancies between District Factor Group A and District Factor Groups I and J occur in the interpretation of the line and circle graphs and map reading.

COMMUNITY TYPE—ELEVENTH GRADE MATHEMATICS

Student performance in the Computation cluster was generally satisfactory for all community types. In the areas of addition, subtraction, multiplication and division of whole numbers and addition and subtraction without regrouping, performance ranged from excellent to satisfactory. All groups show relative weaknesses in finding the numbers when the percent is known and division of a decimal by multiples of ten. Student performance in urban and vocational school districts was

below that of the other community types. Where weaknesses were evident, the disparity of performance between the urban and vocational groups and the nonurban groups was pronounced.

In all community types, the general performance in the Number Concept cluster was satisfactory to marginally satisfactory. The pattern of higher performance in suburban and regional communities continues in the Number Concept cluster with few exceptions. The greatest relative weaknesses appear in the conversion of fractions to decimals and in rounding.

The majority of the results in the Measurement and Geometry cluster for all community types was satisfactory although the urban and vocational communities were lower than the other community types. Unsatisfactory performance was noted for all groups in metrics and problems dealing with circles.

Overall performance in the Problem Solving cluster was satisfactory. All community types had unsatisfactory results in interpreting data from a line graph. Urban and vocational communities continue the pattern of scoring below the other community types.

SUMMARY

The eleventh grade mathematics test consisted of four major skills clusters. Statewide performance on items in the Computation cluster was judged to be excellent on most whole number operations while performance was generally satisfactory to marginally satisfactory on items involving fractions or decimals. Performance on items in the Number Concepts cluster was generally excellent to satisfactory with rounding found to be a comparatively weak skill. The Measurement and Geometry cluster performance showed generally satisfactory levels, but several areas were noted as needing greater attention. Similarly, Problem Solving items were judged to have generally satisfactory performance levels with three skills in the marginally satisfactory range.

PROGRESS SUMMARY

While the vast majority of eleventh graders have mastered the skills being assessed in the Computation cluster of this test, the number of students demonstrating this proficiency has remained constant or declined from 1977-78 to 1978-79. Pupil performance in very few computation skills showed improvement, notably on items involving addition and subtraction of mixed fractions with regrouping and division of proper fractions. Calculating percents is one skill where performance has noticeably declined.

Greater improvement was noted in the Number Concepts cluster, particularly in the area of recognizing and comparing fractions, rounding decimals less than one and rounding whole numbers.

Marginally satisfactory progress was noted in the Measurement and Geometry cluster; however, the small number of items per skill area and the inconsistent performance of the students on items measuring the same specifications makes generalizations extremely difficult in this area.

TABLE XI
EDUCATIONAL ASSESSMENT PROGRAM
1978-79 MINIMUM BASIC SKILLS TEST
ELEVENTH GRADE – MATHEMATICS

Cluster Averages

By Community Type

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT/ GEOMETRY	PROBLEM SOLVING	NUMBER OF CLUSTERS ABOVE STATE
State Averages	83.0%	82.4%	76.9%	76.3%	
Vocational	77.7	76.2	69.9	69.6	0
Regional	85.7	86.6	81.9	80.8	4
Urban Center	75.3	71.4	63.8	63.9	0
Urban-Suburban	85.2	84.8	79.2	78.8	4
Suburban	86.1	87.1	82.9	81.3	4
Suburban-Rural	83.7	83.9	79.0	78.7	4
Rural	82.5	81.8	74.6	76.0	0
Rural Center	81.8	80.7	73.1	76.2	0
Rural Center-Rural	80.7	80.7	73.5	75.0	0

Figure A

By District Factor Group

	COMPUTATION	NUMBER CONCEPTS	MEASUREMENT/ GEOMETRY	PROBLEM SOLVING	NUMBER OF CLUSTERS ABOVE STATE
State Averages	83.0%	82.4%	76.9%	76.3%	
A	74.1	69.3	61.1	61.4	0
B	80.0	77.8	70.9	72.5	0
C	81.3	79.9	73.3	74.1	0
D	83.3	83.3	76.7	77.1	3
E	83.6	83.9	77.9	78.6	4
F	84.9	85.5	80.7	80.0	4
G	85.4	86.2	81.2	80.2	4
H	85.8	86.4	82.4	80.9	4
I	88.5	89.1	85.0	83.3	4
J	87.6	88.8	85.6	82.9	4
V	77.7	76.2	69.9	69.6	0
Z	80.2	80.6	75.2	74.1	0

Figure B

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: COMPUTATION

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
1	Addition of multiple places without carrying	97	Excellent	97	Marg. satisfactory
34		96	Excellent	98	Unsatisfactory
61	Addition of multiple places with carrying	95	Excellent	92	Satisfactory
67		96	Excellent	97	Marg. satisfactory
3	Subtraction of multiple places without borrowing	99	Excellent	97	Excellent
65		98	Excellent	98	Marg. satisfactory
7	Subtraction of multiple places with borrowing	95	Excellent	92	Satisfactory
37		94	Excellent	95	Marg. satisfactory
70	Subtraction of whole numbers with zeros	91	Satisfactory	93	Unsatisfactory
45	Multiplication	85	Satisfactory	87	Unsatisfactory
16	Multiplication with zero	96	Excellent	91	Satisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
69	Multiplication with zero	94	Excellent	96	Unsatisfactory
5	Division: one-digit divisor without remainder	89	Satisfactory	93	Poor
71	Division: two-digit divisor without remainder	80	Satisfactory	77	Satisfactory
10	Division: one and two-digit divisor with remainder	93	Excellent	93	Marg. satisfactory
31		86	Satisfactory	88	Unsatisfactory
2	Proper addition and subtraction of fractions in vertical format	95	Excellent	95	Marg. satisfactory
42		85	Satisfactory	85	Marg. satisfactory
18	Addition and subtraction of mixed fractions in vertical format without regrouping	84	Satisfactory	85	Marg. satisfactory
68		92	Excellent	95	Unsatisfactory

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
53	Addition and subtraction of mixed fractions in vertical format with regrouping	69	Marg. satisfactory	65	Excellent
62		79	Satisfactory	62	Satisfactory
8	Multiplication and division of a whole number	68	Marg. satisfactory	69	Marg. satisfactory
47		83	Satisfactory	83	Marg. satisfactory
87	Division of a proper fraction by a proper fraction	80	Satisfactory	71	Excellent
23	Addition of decimals	73	Marg. satisfactory	93	Marg. satisfactory
36		95	Excellent	71	Excellent
30	Subtraction of decimals	87	Satisfactory	84	Satisfactory
41	Multiplication of decimals	81	Satisfactory	84	Unsatisfactory
9	Multiplication of decimals: zero multiplier	69	Marg. satisfactory	73	Poor
77		83	Satisfactory	81	Satisfactory

New Jersey Educational Assessment Program
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GRADE: ELEVEN - MATHEMATICS

CLUSTER: COMPUTATION (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
52	Division of decimals with whole number divisor	84	Satisfactory	84	Marg. satisfactory
20	Division of decimals: divisor with decimal	64	Marg. satisfactory	63	Marg. satisfactory
44	Division of decimals: answer less than 1	78	Satisfactory	77	Marg. satisfactory
83	Division of decimals by a multiple of 10	60	Unsatisfactory	57	Satisfactory
27	Percent of a number	71	Satisfactory	58	Excellent
72		75	Satisfactory	87	Poor
78	A number when a percent of it is known	46	Unsatisfactory	58	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

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Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: NUMBER CONCEPTS

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
35	Two equivalent fractions	91	Excellent	77	Excellent
79		87	Satisfactory	84	Satisfactory
21	Relative size (comparing) of simple fractions	92	Excellent	87	Excellent
84	Changing from a mixed number to an improper fraction or from an improper fraction to a mixed number	91	Excellent	92	Marg. satisfactory
54	Changing fractions to decimals	66	Marg. satisfactory	66	Marg. satisfactory
82	Changing percent to a decimal	86	Satisfactory	86	Marg. satisfactory
81	Rounding of decimals greater than one	62	Marg. satisfactory	74	Poor
63	Rounding of decimals less than one	70	Marg. satisfactory	66	Excellent
6	Rounding of whole numbers	80	Satisfactory	76	Excellent
33	Properties of numbers: odd and even	86	Satisfactory	98	Marg. satisfactory
4	Properties of one and zero in addition and multiplication	95	Excellent	96	Marg. satisfactory

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GRADE: ELEVEN - MATHEMATICS

CLUSTER: NUMBER CONCEPTS (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
80	Properties of one and zero in addition and multiplication	90	Satisfactory	93	Unsatisfactory

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Minimum Basic Skills Test
STATE REPORT

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Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
11	Length	83	Satisfactory	88	Poor
22	Area	80	Satisfactory	73	Excellent
43	Weight	79	Satisfactory	76	Satisfactory
32	Temperature	69	Marg. satisfactory	88	Unsatisfactory
51	Length - metric	49	Unsatisfactory	55	Poor
60		93	Excellent	51	Excellent
12	Area - metric	51	Unsatisfactory	57	Poor
26	Rectangle with formula	88	Satisfactory	87	Marg. satisfactory
88	Triangle with formula	74	Satisfactory	78	Poor
76	Circle with formula	61	Marg. satisfactory	59	Satisfactory
89	Time	89	Satisfactory	76	Satisfactory
46	Money	91	Excellent	94	Unsatisfactory
24	Quantity	92	Excellent	89	Satisfactory

New Jersey Educational Assessment Program
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Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: MEASUREMENT AND GEOMETRY (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
13	Geometric concepts: right angle, perimeter	75	Satisfactory	86	Poor
19		91	Satisfactory	87	Excellent
85	Geometric relations: parallel lines	88	Satisfactory	91	Unsatisfactory
28	Circles: parts, relationships	83	Satisfactory	97	Marg. satisfactory
29		79	Satisfactory	54	Excellent
66		66	Marg. satisfactory	72	Poor

New Jersey Educational Assessment Program
Minimum Basic Skills Test
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Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: PROBLEM SOLVING

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
56	Reading data from line graphs	91	Excellent	88	Satisfactory
57		82	Satisfactory	78	Excellent
38	Reading data from circle graphs	94	Excellent	96	Unsatisfactory
39		62	Marg. satisfactory	81	Marg. satisfactory
73	Reading data from tables or charts	95	Excellent	92	Satisfactory
75		80	Satisfactory	75	Excellent
48	Reading maps: location of places	84	Satisfactory	96	Satisfactory
58	Interpretation of data from line graphs	52	Unsatisfactory	72	Marg. satisfactory
59		81	Satisfactory	56	Satisfactory
40	Interpretation of data from circle graphs	87	Satisfactory	65	Satisfactory
74	Interpretation of data from tables or charts	72	Satisfactory	93	Marg. satisfactory
15	Sales tax	86	Satisfactory	81	Excellent

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New Jersey Educational Assessment Program
Minimum Basic Skills Test
STATE REPORT

Excellent - a commendable performance
Satisfactory - adequate performance
Marginally Satisfactory - minimally acceptable performance
Unsatisfactory - low performance, suggests need for review or additional instruction
Poor - very low performance, suggests need for emphasis or concentrated instruction

GRADE: ELEVEN - MATHEMATICS

CLUSTER: PROBLEM SOLVING (Cont.)

ITEM NO.	CLUSTER SPECIFICATION	1978-79 TOTAL PERCENT CORRECT	1978-79 ITEM SPECIFICATION COMMENTS	1977-78 TOTAL PER CENT CORRECT	COMPARISON COMMENTS 1977-78 vs. 1978-79
86	Discount	69	Marg. satisfactory	58	Excellent
25	Checking accounts: completing the check stub	64	Marg. satisfactory	49	Satisfactory
55	Average (arithmetic mean) (e.g., bowling or test scores)	84	Satisfactory	83	Marg. satisfactory
50	Ratio-proportion	91	Excellent	61	Excellent
14	Simple application of basic operations of arithmetic	94	Excellent	93	Marg. satisfactory
64	Simple application of basic operations of arithmetic involving more than one operation	74	Satisfactory	96	Marg. satisfactory
49	Reading maps: estimation of mileage	68	Marg. satisfactory	73	Poor
17	Estimation	83	Satisfactory	77	Excellent
90	Approximation	86	Satisfactory	70	Satisfactory

TABLE XII
SUMMARY OF SKILL PERFORMANCE

ELEVENTH GRADE

CONTENT AREA	PERFORMANCE IN SKILL AREA	
	SATISFACTORY	IN NEED OF IMPROVEMENT
Reading	meaning of words synonyms/antonyms main idea when stated identifying facts following directions making inferences determining fact/opinion/fiction relating ideas reference materials maps, charts	meaning from context identifying signal words identifying main ideas when implied identifying author's implied purpose determining validity
Mathematics	basic computation number concepts (odd/even, zero, etc.) graphs and maps	division of decimals rounding metrics circles circle graphs discount completing check stub

RELIABILITY COEFFICIENTS

An important aspect in determining the efficacy of a test lies in an examination of its reliability. To determine whether the Minimum Basic Skills tests consistently measure the specifications upon which they are based, a Kuder-Richardson Formula 20 Reliability Coefficient was calculated for each grade and subject area. The reliability coefficients for the reading and mathematics instruments were respectively .95 and .96, Grade Three, .93 and .95, Grade Six, .96 and .95, Grade Nine, .95 and .95, Grade Eleven. The reliability data were based on spaced samples representing the pupil population for each test.

The Kuder-Richardson coefficients were selected because they provide an estimate of reliability based on how each test item relates to each other item and to the test as a whole. Kuder-Richardson reliability coefficients stress the equivalence of all items in a test.

The table below lists the reliability coefficients for the total test and each cluster. Also listed are the number of items in each test and cluster.

All the data reported in this appendix are based upon random samples of 1,805, 1,820, 2,155, and 1,915 for Grades 3, 6, 9, and 11 respectively.

Reading

Score	Grade 3		Grade 6		Grade 9		Grade 11	
	Items	Rel. KR-20	Items	Rel. KR-20	Items	Rel. KR-20	Items	Rel. KR-20
Total test	100	.95	95	.93	110	.96	110	.95
Cluster 1	49	.90	30	.77	30	.83	20	.77
Cluster 2	45	.90	44	.89	64	.94	75	.93
Cluster 3	6	.58	21	.78	16	.72	15	.68

Mathematics

Score	Grade 3		Grade 6		Grade 9		Grade 11	
	Items	Rel. KR-20	Items	Rel. KR-20	Items	Rel. KR-20	Items	Rel. KR-20
Total test	100	.96	100	.95	95	.95	90	.95
Cluster 1	38	.91	34	.86	41	.88	38	.86
Cluster 2	25	.86	35	.88	16	.79	12	.74
Cluster 3	17	.78	15	.75	21	.86	19	.83
Cluster 4	20	.87	16	.81	17	.79	21	.82

COMMUNITY TYPES AND DISTRICT FACTOR GROUPING

I. Definitions

A. Community Types

1 - Urban Center (UC) - densely populated with extensive development.

2 - Urban-Suburban (US) - near an urban center but not as highly developed, with larger residential areas.

4 - Suburban (S) - predominantly single-family residential within a short distance of an urban area.

5 - Suburban-Rural (SR) - rapidly developing area, but still large tracts of open land available for development.

6 - Rural (R) - scattered small communities and isolated single-family dwellings.

7 - Rural Center (RC) - high density core area with surrounding rural municipalities.

8 - Rural Center Rural (RCR) - small developed core area surrounded by rural areas.

9 - Vocational (V) - primary emphasis on vocational training under a separate educational jurisdiction.

0 - Regional District (R) - an educational jurisdiction established to service several surrounding communities.

B. District Factor Groupings

Data from the 1970 United States Census Survey were used to develop the District Factor Groupings (DFG) for the Phase II interpretations. These groupings replace the four geographical quadrants which were used in reporting the results for 1972 and 1973.

To obtain a measure of the socioeconomic background of the school districts in New Jersey, a factor analysis was performed on a series of 1970 census variables known to contribute to a district's socioeconomic background status.

Factor analysis is a statistical method by which the pattern of relationships between a set of variables may be analyzed to determine a small number of independent, underlying dimensions (or factors) to account for the observed relationships among a set of variables.

The type of factor analysis used for this study was an iterative principle component analysis with a varimax rotation.

There were eight variables, which measure the many facets of socioeconomic status, used in the factor analysis. The following variables were used to determine a district's socioeconomic status:

1. Education - The education level of males and females 25 years and older.

A.	number school years completed (including nursery and kindergarten)	(1)
B.	1-4 years elementary	(2)
C.	5-6 years elementary	(3)
D.	7 years elementary	(4)
E.	8 years elementary	(5)
F.	1-3 years high school	(6)
G.	4 years high school	(7)
H.	1-3 years college	(8)
I.	4 years college	(9)
J.	5 or more years college	(10)

2. Occupation - The National Opinion Research Center (NORC) in 1947 undertook a study to determine the prestige with which occupations were viewed. In 1961, A.J. Reiss (Occupation and Social Status; Free Press. 1961) up-dated the NORC work. The major occupations were determined by averaging the prestige rankings of the occupations comprising each category. The categories (ranked from high to low) were as follows:

A.	Old and New Professionals	(11)
B.	Managers, Officials, and Proprietors	(10)
C.	Quasi-professionals	(9)
D.	Craftsman, Foreman, and Kindred Workers	(8)
E.	Clerical and Kindred Workers	(7)
F.	Sales Workers	(6)
G.	Protective Services Workers	(5)
H.	Operatives and Kindred Workers	(4)
I.	Farm Workers	(3)
J.	Service Workers (except private and protective)	(2)
K.	Laborers	(1)

3. Mobility - Percent of persons living in the same housing unit for at least the past ten years.

4. Density - Number of people per housing unit.

5. Urbanization - Percent urban population of the district.

6. Income - Average family income.

7. Unemployment - Percent of experienced unemployed males and females sixteen years and older.

8. Poverty - Percent of families below the poverty level.

The factor analysis determined two significant factors or dimensions of the ten variables. Based on the interpretation of the significant factors, the first factor was determined to be a factor measuring socioeconomic status.

Based on the socioeconomic factor, a factor score was generated for each of the school districts included in the analysis. The districts were then ranked according to their factor score and cut-points were established to divide the districts into ten District Factor Groups. The cut-points were determined so that all District Factor Groups would be comprised of approximately the same number of school districts.

The ten District Factor Groups were labeled from "A" to "J" with "J" containing those districts with the highest factor scores.

No school district census information was available for school districts with a student enrollment of less than 300; therefore, these school districts were excluded from the analysis. These school districts were placed in a District Factor Group called "Z". Vocational-Technical schools were placed in a separate category called "V".

The relative importance of the eight variables in the composition of the factor is:

Educational Background of the District	27.82%
Occupational Background of the District	24.17
Per Capita Income of the District	19.26
Percent Poverty Level	13.32
Unemployment Rate	10.38
Population Density	4.19
Degree of Urbanization	0.83
Population Mobility	0.03